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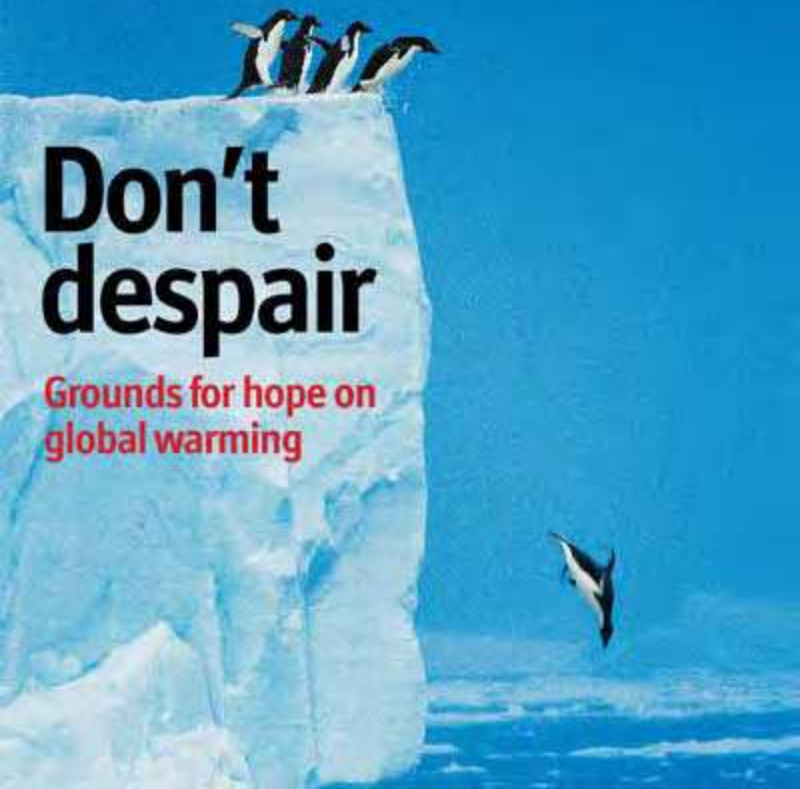

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Politics this week

Dec 8th 2005
From The Economist print edition

So what's all the fuss?

AP

Condoleezza Rice staged a whirlwind tour of Europe. The American secretary of state visited Berlin and Kiev before going to Brussels. Her visit was dogged by allegations of secret CIA flights in Europe carrying terrorist suspects, and even CIA prisons in eastern Europe where torture may have taken place. Ms Rice insisted that the United States respected other countries' "sovereignty", and did not practise torture, but few Europeans were satisfied. See article

The House of Lords ruled that evidence that might have been attained by **torture** cannot be used against terror suspects in English courts, overturning a lower court's ruling that such evidence could be used if British authorities had not been involved. The decision is likely to make it more difficult to secure convictions against terrorist suspects.

Ante Gotovina, a former Croatian general who commanded the 1995 military operation to overrun Serb enclaves in **Croatia**, was arrested in Spain. He was expected to be sent for trial at the war-crimes court in The Hague. Western governments had put pressure on Croatia to help with apprehending him.

In **Moscow**, a city-council election, widely seen as a precursor to the 2007 Russian parliamentary election, was overwhelmingly won by United Russia, the party backed by President Vladimir Putin. The opposition liberals won only three out of 35 seats and just 11% of the vote, despite uniting for the first time. See article

In from the cold?

Egypt's three-round general election ended with independent candidates fronting for the Muslim Brotherhood increasing their tally of parliamentary seats sixfold, to more than 90 of the chamber's 454. Police shot dead eight protesters during the final stage of voting. See article

Tension rose between the leading parties and coalitions campaigning in the run-up to **Iraq's** general election on December 15th. Suicide bombers killed at least 36 police cadets and injured more than 100 others in a training school in Baghdad, the highest death toll in such attacks for several months. See article

After two adjournments, the trial of **Saddam Hussein** and seven co-defendants for crimes against humanity got going, with Iraq's former leader lambasting the judge and denouncing the trial as theatre. He then refused to attend the court, which proceeded without him.

AP

A **Palestinian** suicide bomber belonging to Islamic Jihad, a small group that rejects the current fragile ceasefire between Israelis and

Palestinians, killed six people including himself in the coastal town of Netanya.

A military transport aircraft, carrying mostly Iranian journalists, crashed into a residential district of **Tehran,** killing all 94 people on board and 34 people on the ground.

Jacob Zuma, **South Africa's** vice-president until June, when he resigned after his business adviser was convicted of bribery on his behalf, was charged with rape. See article

African mediators chose Charles Konan Banny, governor of West Africa's central bank, as **Côte d'Ivoire's** interim prime minister, in a bid to break a deadlock in negotiations between the country's divided north and south. The president, Laurent Gbagbo, controls only the south.

Eritrea escalated the tension along its disputed border with **Ethiopia** by expelling more peacekeepers from the UN force monitoring a buffer zone between the two sides.

Changing the guard

Indonesia's President Yudhoyono fired his co-ordinating minister for economics, replacing him with Boediono, a greatly respected former finance minister. The markets were impressed. See article

At least 12 people were killed when a bomb exploded in a town in **Pakistan's** Waziristan region, close to the border with Afghanistan. There has been a rise in violence in the area following last week's death of a senior al-Qaeda commander in an explosion.

Some 100,000 (the organisers claimed 250,000) people marched to demand universal suffrage in **Hong Kong**. See article

Could do better

The members of the federal commission set up to investigate the **September 11th** attacks issued a final report on the American government's response to their recommendations. Although some progress has been made, the members gave a grade “F” in areas such as pre-screening airline passengers and providing cash to cities most at risk.

Federal **air marshals** shot and killed a man at Miami airport who said he had a bomb and ran from an aircraft. No bomb was found. It is the first case of a shooting incident involving an air marshal since September 11th 2001.

John Campbell, the Republican candidate, won a special **congressional election** in a conservative district in southern California, seeing off a challenge not just from the Democrats but also from Jim Gilchrist, a co-founder of the Minuteman Project, which vociferously opposes illegal immigration.

More than hot air

Addressing the delegates gathered in Montreal for a United Nations conference on **global warming**. Paul Martin, Canada's prime minister, called on “reticent nations, including the United States”, to head the “global conscience”. See article

Supporters of Hugo Chávez, **Venezuela's** president, won all the seats in the National Assembly, after opposition parties pulled out of an election to protest at the government's control over the electoral authority. Officially, turnout was 25%, though the opposition said it was lower. See article

EPA

Fidel Castro, **Cuba's** president, said that half of the country's state-controlled petrol supplies had been stolen in recent years. In October, Mr Castro put youth organisations in control of petrol stations in a drive against corruption.

The United States completed talks with Peru for a **free-trade agreement**. American officials are likely to wait until slower-moving talks with Colombia are complete before sending the agreement to Congress for ratification.

Carina Perelli, the director of the **United Nations** elections division, was sacked over allegations of misconduct including sexual harassment. Ms Perelli was regarded as a rising star in the world body, receiving praise for organising elections in Afghanistan and Iraq.

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Business this week

Dec 8th 2005
From The Economist print edition

The battle for Guidant

Boston Scientific made a $25 billion counterbid for **Guidant**, a maker of medical devices, trumping **Johnson & Johnson's** renegotiated offer by some $3 billion. Last month Guidant ironed out a row over its market value with J&J to accept a reduced price of $21.5 billion. The firm said it would consider Boston's bid. J&J did not raise its offer and said its transaction offered "full and fair value". See article

NTL, a British cable operator, confirmed that it was seeking to buy **Virgin Mobile**, controlled by Sir Richard Branson's group, for £817m ($1.4 billion). The approach, which was rebuffed by Virgin, came hot on the heels of NTL's merger with Telewest, a domestic rival, and is an attempt to boost the firm's strategy of becoming the premier "quadruple-play" provider of fixed and mobile phones, broadband and TV in Britain.

South Korea's Fair Trade Commission ordered **Microsoft** to create a separate version of Windows that does not include its instant messaging and media player services, in a bid to promote competition. Microsoft's fine in this case, which is similar to the European Commission's landmark antitrust ruling against the firm in 2004, was small—$32m compared with the EU's $613m penalty.

Gemplus and **Axalto**, the world's largest makers of **smart-card** chips for credit cards and mobile phones, agreed to merge. The new firm, called Gemalto, will be registered in the Netherlands and have sales of *euro*1.8 billion and 11,000 employees. Even though the company faces strong competition from Asia, regulators will scrutinise the merger since Gemalto will control 40% of the market.

The World Trade Organisation voted to make permanent a waiver to its rules on intellectual property that allows poor countries to import cheaper, generic versions of **patented drugs** (the rule has to be ratified by WTO members by late 2007). Under the rule, poorer nations will be allowed to import generic drugs for humanitarian reasons, but not for commercial purposes.

Murky waters

P&O's share price rose by almost 12% on December 2nd amid rumours of a counterbid to DP World's £3.3 billion ($5.7 billion) recent takeover offer. Investors pored over a statement from Temasek Holdings, the Singaporean government's investment company, that confirmed it had built a 4.1% stake in P&O, but left the door open as to whether it was seeking to buy the British operator of ports and ferries.

Airbus signed a $10 billion deal to supply 150 A320-series aircraft to six Chinese airlines and said it was extending "industrial co-operation" with China that may include a new assembly line in the country, its first outside Europe.

General Motors said it was discussing a board appointment for a lieutenant of Kirk Kerkorian, the billionaire investor who owns almost 10% of the beleaguered carmaker. The likely candidate is Jerome York, a former Chrysler executive. It also appointed Frederick “Fritz” Henderson, who oversaw a restructuring and job-cutting plan as chairman of GM Europe, who will become chief financial officer.

Banking on Russian growth

German and Russian banks announced two big deals. **Dresdner Bank** said it was buying a third of **Gazprombank** (controlled by Gazprom, the Russian gas monopoly) for $800m, ahead of a planned listing of the Russian bank next year. And **Deutsche Bank** agreed to buy the 60% it doesn't already own of **United Financial Group**, a brokerage, for an estimated $420m, underlining the increasing keenness of western banks to move into Russia's banking system.

More than 95% of the **New York Stock Exchange's** members approved a merger with **Archipelago Holdings**, an electronic exchange, which will turn the 213-year-old institution from one owned by 1,366 “seatholders” into a public company owned by shareholders. The new company, NYSE Group, will have a market capitalisation of more than $9 billion. See article

J.P. Morgan Chase, Intel and Microsoft all announced plans to invest further in India. J.P. Morgan will move one-third of its back-office operations to India and recruit an extra 4,500 Indian graduates to process foreign exchange and credit derivatives transactions. The move highlights a growing trend among large financial institutions to cut costs through offshoring.

Confidence up, currency down

The **yen** continued to slide against a range of currencies, hitting an all-time low against the euro and a 32-month low against the dollar. Analysts reckon that individual Japanese investors, who have been moving their money into higher-yielding foreign assets, have played a role in the yen's recent fall.

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Economist.com OPINION

Global warming

Don't despair

Dec 8th 2005
From The Economist print edition

Most of the news on the climate change front is bad, but not all of it

Get article background

IT SEEMS a shame for the blameless Japanese city of Kyoto that its name should forever be associated with failure. Still, it's stuck with it, for that's how the global agreement on cutting carbon emissions that was agreed on in the city in 1997 has come to be regarded. It's a shame, too, that this flawed treaty should cast a pall over the effort to get a global agreement on climate change. For, through the gloom, there are some encouraging developments.

Kyoto's failure is hardly surprising. Agreeing on how to control carbon emissions is even harder than agreeing on how to promote free trade. Both issues require lots of countries to make political sacrifices to achieve a collective good; but at least in the case of free trade, the benefits accrue swiftly. The costs of cutting carbon emissions, by contrast, pile up in the short term, while the benefits are far-off and uncertain.

Given those difficulties, the fact that Kyoto was signed at all looks like an achievement. So is the fact that it established the right goal—binding targets for cuts in greenhouse gas emissions—and got 150 countries to sign up. The International Energy Agency reckons that the industrialised signatories look like hitting their target of cutting their greenhouse gas emissions to 5% below their 1990 level by 2012. But the holes in the treaty are so huge—America didn't sign up, and developing countries do not have targets—that even with Kyoto in place, at their current rate of increase, global emissions look like increasing by 50% between now and 2030.

In consequence, the global environment ministers' meeting in Montreal this week to discuss better ways of implementing Kyoto was a rather cheerless affair. As *The Economist* went to press, there was some discussion of whether America would deliver a last-minute concession; but nobody expected much of real substance to come out of the meeting. However, while Kyoto is stuck, the world is moving on.

First the bad news

In the seven years between Kyoto's signing and its implementation earlier this year, much has changed. The news from the scientists is mostly bad (see article). The news from business and from politics, though, is more ambiguous. Business, which was once solidly against controlling carbon emissions, is now divided. In June, the chief executives of two dozen multinational firms, including American companies such as Ford and Hewlett-Packard, met Tony Blair to argue for the G8 rich-country group to adopt a global carbon-trading system.

Business's growing interest in greenery is partly public relations, but there's solider economic self-interest involved, too. Companies are investing in renewables because the gap in cost between them—solar and wind power in particular—and conventional energy sources is shrinking (see article). And it's not just small companies run by idealistic greenies that are betting on environmentally-friendly technology. GE, the world's largest energy-equipment supplier, is convinced that there's money to be made from technologies such as clean coal (see article).

The more companies such as GE invest in green technology, the greater the chances that their customers, such as electricity utilities, will buy the stuff and thus cut their emissions. But the two main determinants of whether or not this will happen are oil prices and governments.

Don't rely on the oil price

High oil prices are certainly doing their bit for greenery now, but they cannot be relied on to constrain hydrocarbon consumption. Although they are partly the result of higher demand, especially from China, other factors influence them too. An increase in supply, for instance, as a result of new investment and new finds, could push prices down again. So, for that matter, could peace in Iraq, believe it or not.

What companies like GE are betting on, therefore, is that big-country governments will accept the need for a workable system of global targets for cutting emissions. Any such system must do two things. It must include America, China and India, and it must have the flexibility and efficiency that only a market-based system can provide.

America's government must take much of the blame for blocking global action so far. But Europe's governments have also been at fault. They originally opposed the market-based carbon trading system that America wanted. But things have changed on both sides of the Atlantic.

European governments soon realised that the command-and-control system of emissions targets they planned would impose insupportable costs on business, and that they would have to use market mechanisms to ensure flexibility and efficiency and thus keep costs down. The result was the launch of a pioneering pan-European carbon trading system this year.

In America, meanwhile, George Bush shows no sign of tempering his opposition to targets, and the federal government's attitude is what matters most. But at lower levels of government, there's some movement. Over a hundred cities and around two dozen states (including New York and California, which both have Republican governors) now have some form of curb on greenhouse gases, and a group of north-eastern states is due to launch a carbon-trading system next week. Several dozen of the country's leading industrial firms, now including GE, have taken voluntary steps to curb emissions.

There are grassroots forces pushing for change as well. A noisy movement among evangelical

Christians, led by Billy Graham, argues that God has given man “stewardship” of the Earth; and thus it is man's responsibility to act on climate change. Mammon is upset too: insurers are pushing for change and a growing chorus of American pension funds and other investment managers see climate as a potentially huge undisclosed risk to their investments.

Most importantly, voters seem to be changing their minds. Opinion polls show that more than half of Americans believe climate change to be a real problem, and over a third believe (rightly or wrongly, it is too early to tell) that it was a major factor behind the recent deadly hurricanes in the Gulf of Mexico. Four years ago, half of Americans thought Mr Bush was doing a good job on the environment and just over a third thought he was doing a poor job. Now the position is reversed.

China's government is not as susceptible to opinion-poll shifts as America's, and its people are likely to be preoccupied with more pressing economic concerns than with distant questions of climate change. Yet even in China there are signs of real concern. The country has just enacted tougher fuel-economy laws than America's, its current five-year plan calls for more investment in fuel efficiency and it is planning to build 30 nuclear-power stations over the next two decades. China seems willing to talk about post-Kyoto commitments; India, by contrast, insists that America must move first.

These shifts do not amount to an earthquake in global politics. Attempts to get agreement on whatever replaces Kyoto will face the same fundamental difficulty as Kyoto did: how to get the world's biggest polluters to sign up to a deal that will require them to agree to bear short-term costs in return for uncertain long-term benefits which will accrue only if other big polluters do their bit. Yet to dwell on the gloom that the difficult Kyoto process cast over the world would be to ignore the real signs that things are changing.

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Trade

Do despair

Dec 8th 2005
From The Economist print edition

The global trade round betrays a hopeless lack of urgency and ambition

Get article background

LONG before any trade minister sets foot in Hong Kong, it has become clear that next week's meeting of the World Trade Organisation will fall depressingly short of its goals. Officially, the gathering is meant to agree on the broad contours of a deal to free trade in farm goods, industrial tariffs and services. Thanks, in particular, to Europe's intransigence over cutting farm tariffs, that will not happen. The ministers may be able to report modest progress (such as a vague promise to accelerate the elimination of cotton subsidies) but the guts of a Doha deal will be delayed yet again.

By the standards of WTO meetings, delay in Hong Kong would not be disastrous. Two of the past three gatherings (Seattle in 1999 and Cancun in 2003) collapsed in acrimony. A third collapse cannot be ruled out in an organisation where decisions require unanimity, but it seems unlikely. Even the most pig-headed trade minister knows that another breakdown would devastate the WTO as a negotiating forum.

Delay, in contrast, seems painless. The world economy will not swoon just because it has to wait a few months, or even years, to agree on more tariff cuts. Past global trade rounds have broken deadlines as a Greek wedding breaks plates.

All true, but all recklessly complacent. George Bush's fast-track negotiating authority, needed for America to negotiate, expires in July 2007 and is unlikely to be renewed. Regional and bilateral trade agreements are gaining appeal, even though they are inferior to multilateral trade. The Doha talks will not hold politicians' attention forever. Apathy poses almost as big a threat to the WTO as acrimony precisely because its dangers are less obvious.

The Doha dodge

From the beginning, the Doha round asked to be judged as a way of helping the developing world. But the watered-down deal that today seems likely would inevitably frustrate and disappoint its backers—particularly among the poor countries Doha was supposed to help most.

According to the World Bank's latest estimates, a likely Doha compromise would modestly raise global income, but would produce scant gains for poor countries and barely dent the number of people living in extreme poverty (see article). Although economic models do not capture all the gains from liberalising trade, there is little doubt that the Doha round is turning out to be less good for the poor than it could be.

That is partly because the talks have focused too narrowly. Most of the debate has been about freeing farm trade. There has been virtually no progress on freeing trade in services, from transportation to temporary workers, which promise even bigger benefits to poor countries.

Intransigence by rich countries is also partly to blame. Europe is shamefully reluctant (see article) to cut its farm tariffs, even though poor countries would gain more from better access to rich-country markets than from lower rich-country farm subsidies. Outrageously, Europe's negotiators are touting their protectionism as a gift to the poor. Some of the world's poorest countries already get preferential access to Europe's markets. Lower tariffs for everyone, argue the negotiators from Brussels, would reduce this preference, leaving the favoured few relatively worse off.

That may be true, but preferential tariff schemes are often less generous than they appear. Moreover, the countries that suffer from seeing their preferences eroded need financial compensation, rather than to be used as an excuse for stymieing a deal that, if it is ambitious enough, could help many more poor people.

But if the Doha round fails to do much for the poor, rich countries will not be the only villains. The round's biggest flaw is the mercantilist mindset that has corrupted it. Being “pro-poor” in the Doha context has become synonymous with advocating more exceptions and less tariff-cutting by developing countries. The very poorest countries will have no obligations from a Doha round at all.

This logic is tragically misguided. Developing countries, even the very poorest, would gain most from a trade round that encouraged more tariff-reduction at home, not less. That is both because a lot of their trade is with each other and also because their tariffs are far higher than those in rich countries.

For the poor—and for the WTO, with its credibility wrapped up in the Doha round—the meeting in Hong Kong must summon up more ambition and a radical new approach. Judged by the risible progress in the past four years, neither seems likely. But if Doha is not to be disappointing as well as delayed, that is what trade ministers must secure next week.

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The European Union budget

When the CAP doesn't fit

Dec 8th 2005
From The Economist print edition

Tony Blair has ducked the challenge of reforming the European Union's finances

Get article background

ONE of the odder features of the European Union is its six-monthly rotating presidency. This puts pressure on whichever political leader happens to be in the chair not merely to preside efficiently, but also to notch up a string of “achievements”. That explains why Britain's Tony Blair, whose current EU presidency culminates in a summit in Brussels on December 15th and 16th, has spent the past week flailing around Europe in a desperate quest for a deal, any deal, on the EU budget for 2007-13.

In June, when Mr Blair rejected a compromise put forward by the previous Luxembourg EU presidency, he set out some sensible parameters for future negotiations. After the rejection of the EU constitution by French and Dutch voters, the Union was crying out for reform. Mr Blair spoke of modernisation, a “reality check” and a “wake-up call”; he noted that a modern EU budget would not be one that spent 40% of its money on the common agricultural policy (CAP); and he repeated that he would put the British rebate, won by Margaret Thatcher in 1984, on the table provided there was more CAP reform.

The British presidency finally put forward its own proposal for a budget compromise on December 5th. Set against the ambitions Mr Blair laid out in June, it is striking mainly for its timidity. At French insistence, the plan leaves the CAP untouched until 2013: indeed, it raises its share of the budget to 44%. Far from boosting EU spending on research and innovation, the British compromise cuts it sharply. Despite getting so little on the CAP, Mr Blair's proposal makes significant cuts in the British rebate, albeit smaller than those suggested by Luxembourg in June. And to make the numbers add up, he suggests trimming regional aid to new EU members from central Europe by 10%, a plan fully meriting the European Commission's jibe about a new “sheriff of Nottingham” who takes from the poor to give to the rich.

Predictably, Mr Blair's compromise has run into a storm of opposition around Europe. The commission said it was a budget for a “mini-Europe”; several countries called for new proposals, which the British have now promised. In fact, the original plan is tactically astute. By cutting the size of the budget, it appeals to big net payers, such as the Germans and the Dutch. Leaving the CAP intact ought to please the French, who remain atavistically attached to farm subsidies (see article). Even the central Europeans, though angry about their budgeted assistance being cut, might sign up, partly because Mr Blair proposes to ease the conditions they have to meet to get their money, and partly because they fear that further delay could cost them even more. Next week's summit promises much noisy fist-banging, and Mr Blair may have to put more of the British rebate on the table—but a deal could be done.

Strategically, however, the British budget compromise is already a failure. It does nothing to shift spending from a backward-looking emphasis on farming and regional transfers to more forward-looking support for industries of the future. Although more CAP reforms will surely be required by world trade negotiations, this plan makes no move towards them. The French president, Jacques Chirac, insists that the deal struck in October 2002, endorsed by all EU leaders, to keep CAP spending unchanged until 2013, must be respected. Not for the first time, Mr Blair must be kicking himself for ever accepting that deal—and wondering if he, and his successors, really will have to wait until 2013 before reopening it.

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Economist.com OPINION

The East Asia Summit

Time to talk

Dec 8th 2005
From The Economist print edition

And that means China and Japan too

NEXT week, half the world will sit down together in Kuala Lumpur for the first East Asia Summit. Since they represent collectively 49% of the global population (or claim to, in the case of China, Myanmar and a few other authoritarian hold-outs), you might think the summiteers would have some weighty matters to discuss. China and India, two populous, up-and-coming powers that are both potential partners and potential competitors, will be there. So will China's longer-standing regional rival, Japan, still East Asia's weightiest economy and these days a much more active player across the board; as will South Korea, the ten countries of the Association of South-East Asian Nations (ASEAN), Australia and New Zealand. The dawn of a “new Asia”, claim enthusiasts. But most of the 16 at the table will be relieved simply to agree to meet again. So what, then, is the point in meeting at all?

Getting this motley bunch together is a feat. Unlike today's more settled Europe, fast-changing East Asia lacks the underpinnings of broad alliances, and is criss-crossed instead by unstable rivalries. Real power is still measured unnervingly in comparisons of missile reach and warship tallies. And real conflict threatens from time to time, over rival claims to rocks and reefs thought to sit atop sought-after energy reserves, over Taiwan and over North Korea's threatening nuclear behaviour. Yet the region boasts few talking shops, except for the unwieldy annual Asia-Pacific Economic Co-operation (APEC) summit and ASEAN's Regional Forum and its other off-shoots (meetings will take place next week, first with China, Japan and South Korea bilaterally, then at what is called ASEAN+3), all heavily scripted, awkwardly choreographed events.

Divergent views, if not downright hostility, across the table will cramp diplomatic style at the first East Asian Summit too. China's prime minister, Wen Jiabao, may yet even refuse to talk to Japan's Junichiro Koizumi, because of his controversial visits to the Yasukuni shrine that honours Japan's war-dead but where some war criminals are also enshrined.

Not only that, but America, the Asia-Pacific power that does most for the region's stability and security, is not invited. China, with ambitions to regional leadership, planned it that way. Yet China's idea for an East-Asians-only club, with a “security dimension” modelled on the Shanghai

Co-operation Organisation which it has used to counter American influence in Central Asia, was blocked by Japan and America's other friends in the region. By drawing in India they have usefully diluted China's influence, to the quiet relief of everyone else, as has the invitation to Australia and New Zealand. But America is miffed to be excluded, and will be tempted to think that any club that won't have it as a founder-member isn't worth paying heed to.

Irrelevance may indeed be the East Asia Summit's fate. But to wish for that would be a mistake. Excited talk of an Asian version of the European Union is hugely premature. But alongside the military rivalries, there is now emerging an East Asian community of other more beneficial interests: in trade, investment and financial co-operation, as well as in combating global scourges like AIDS and bird flu, or dealing with piracy, proliferation and terrorism.

Nor would mimicking the EU be a measure of Asia's success. Without all the burdensome fish quotas and labour-market regulations that Europeans have invented for themselves, East Asia's economies (except dysfunctional Myanmar's) are already growing closer. Next week's 16 summiteers already do more than half (51%) of their total trade with each other. Some look forward to a time when “Asia” collectively will speak truth to both America and the EU in talks on trade and the world economy.

Letting the past go

Whether that will ever be possible with contending heavyweights like China, Japan, India and a someday united Korea is doubtful. But the more opportunities for Asia's bigs and smalls to talk about practical things, the better: a former Japanese and a former South Korean foreign minister have joined forces with the private Eurasia Group to propose a more permanent five-party North-East Asia security dialogue (growing out of the six-party talks over North Korea), including both America and Russia. But none of this will help unless China, Japan and Korea find ways to put their awful history behind them where it now belongs (a reformed shrine to Japan's war-dead would help too), stop teaching their schoolchildren to loathe one another, and look instead to Asia's future.

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Economist.com OPINION

Torture

Minced words

Dec 8th 2005
From The Economist print edition

The Bush administration still does not grasp how damaging its stand on torture has been

AP

IT IS hard to know which is worse: an administration that cannot understand that something is wrong, or one that grasps the problem but thinks it can fiddle its way through. The Bush administration seems torn between these approaches when it comes to the issue of torture.

Some of the administration's leading lights, notably Donald Rumsfeld and Dick Cheney, seem to have discarded the idea that America's good name counts for much in the war on terror. For the vice-president and the defence secretary the debate about torture, just like those about Guantánamo Bay and the CIA's supposed secret prisons in eastern Europe, apparently comes down to military efficacy. Global public opinion, hearts and minds, call-it-by-whatever-soppy-name-you-liberals-want, is irrelevant. This approach may be pig-headed—torture often does not work and most military men think hearts and minds are crucial in fighting terrorism—but at least Mr Cheney's opposition to Senator John McCain's proposed ban on American soldiers and spies using torture or other degrading treatment is consistent.

Condoleezza Rice takes a different approach (see article). The secretary of state seems to have realised that Abu Ghraib and Guantánamo have been great recruiting posters for Osama bin Laden; she sees America's unpopularity in Europe as a threat, not a badge of honour. She flew across the Atlantic this week to defend America's reputation, particularly against the accusation that the CIA has used European airports for “torture flights”—taking terrorist suspects either to its own secret prisons, or to countries where torture is tolerated.

Ms Rice's visit served as a reminder to the more extreme Americanophobes of three things. First, that many of the accusations hurled at her country remain unproven. Second, that any alleged transgressions by America pale when set beside those of the enemies both it and Europe are fighting. And, third, that American intelligence has helped save European lives. Yet she still left

behind too many unanswered questions.

To be fair to Ms Rice, the bar she had to jump over was, in some instances, impossibly high thanks to the obstructionism of her colleagues. For instance, when Ms Rice insists that America does not do anything illegal or break any international conventions, this counts for little when the administration has argued, first, that during time of war, the president can make just about anything legal, and, second, that the UN Convention Against Torture does not apply to interrogation of foreign terrorist suspects outside the United States.

Even with that excuse, however, she spoke too often like a defence lawyer rather than a candid friend. For instance, when it comes to “extraordinary rendition” (the term for shipping suspects to other countries for interrogation), she said that America did not send them anywhere where it knows they *will* be tortured. But as she well knows, the difficult question is whether America has shipped them to places where they *may* be tortured. As for the CIA's use of European airports for such flights, she insisted that America has respected the sovereignty of the host countries—without going into any details about what that meant. Did America say who was on the flights (in which case the Europeans have no cause for complaint), or did it just say: “Trust us, we are acting legally?” Nobody knows, and the fact that she was backed up by a similarly vague supportive statement from Britain is not helpful.

The ambiguity left by Ms Rice requires action both in Europe and in America. European governments should either explain to their people exactly what they have condoned, or they should find out exactly what the Bush administration is up to. Pestering America is not something that allies should do lightly. But in this case it is overdue, not least because the alternative is to watch anti-Americanism surge forward on a tide of human-rights cases. (An innocent German who was arrested in Macedonia and flown to a CIA facility, known as the “Salt Pit”, in Afghanistan filed a suit this week.)

But the main change must take place in Washington, DC. The time has long since passed for legal technicalities, for saying that the burden of proof lies with America's accusers or for pointing out the unquestionable evil of the men America is fighting. If America is to escape from the mesh in which it has entangled itself, it needs something decisive and unambiguous—such as the McCain amendment.

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Economist.com OPINION

The Conservative Party

The toughest job in politics

Dec 8th 2005
From The Economist print edition

Britain's Tories have much to do before their new leader can call Downing Street home

Reuters

TOUCHED with stardust and consciously exuding optimism, David Cameron took his place on the opposition front benches this week, the new leader of the Tory party. At the dispatch box, Tony Blair welcomed his young rival with condescending humour. But the real battle lies elsewhere.

It lies between Mr Cameron, a likeable fellow and fine communicator whose true abilities have yet to be tested, and battle-hardened Gordon Brown, the truculent chancellor of the exchequer who is expected to take over as Labour prime minister when Mr Blair moves on. Does Mr Cameron, in the real world, stand a chance?

For this week, at least, euphoric Tories think he does. Mr Blair's problems are mounting, on issues as diverse as the European budget and catching terrorists. The chancellor himself has been forced on to the back foot of late, over pension reform, over economic and fiscal forecasts, over an expensive mess on tax credits for the poor (see article). Yet despite this, and despite all the heavily-reported Cameron magic during the long-drawn-out leadership campaign, recent polls suggest that still only one voter in three wants the Conservative Party to run the country. That could change and change fast, especially if Labour falls apart as it shows some signs of doing. But winning the 2009-10 election looks a pretty long shot.

Of winning the next election but one, however, and offering an effective opposition in the meantime, Mr Cameron has every chance, if he goes about it correctly. He is right to turn a deaf ear to charges that he is all style and no substance, and defer policymaking to a later date. For it is not so much the Tories' policies as the Tories themselves that need changing.

It's the party, stupid

Mr Cameron beat his right-of-centre rival by two votes to one mainly because he promised to revitalise a moribund party, to give it a different look and sound, to increase its appeal especially to the young, the urban and the northern. So how can he begin this transformation? His shadow cabinet will matter, for one big task for the Tories is to look the part of a credible, alternative government. By assembling a broad and talented team, rather than the freak show deployed by some of his predecessors, he has begun well and confidently. But the change that is needed is more fundamental than that.

A good place to start would be to lean on local parties to select candidates from outside the bankers-in-Barbours brigade. This involves more than just naming a lot of young women, though that will help. The party needs plumbers, teachers, blacks, Asians and others peopling not only its stage-managed photo shoots but also its constituency offices and platforms.

To reach these potential new Tories—and gain more first-hand experience of the social ills and public-sector dysfunction that Mr Cameron says he wants to fix—the party must rebuild a base in the cities. Reversing nearly two decades of urban political decline will be a long process. Agents must be trained and paid, new members recruited, friendly local councillors elected, and in time a Birmingham or a Leeds might start returning the odd Tory MP. Instant gratification this is not, but why else does a party choose a 39-year-old to lead it?

Meanwhile, Mr Cameron must also be seen to do well in Westminster. It is not the quick, acerbic win in the gladiatorial clashes of prime minister's questions that matters, but the maintenance of a constant, constructive engagement in the process of making laws, one that provides a clear, positive indication of what the Tories stand for. With that in mind, Mr Cameron says he intends to support government proposals that are heading in the right direction. A bill early next year to give state schools more autonomy could prove the first test of his resolve. It will be tempting to join back-bench Labour MPs likely to vote against it, and try to defeat Mr Blair.

If he resists this temptation, he may well be duffed up by his own right-wingers, who are also likely to squawk at any moves to make the party the voice of social as well as economic liberalism. But resist it he should, and if a few diehards jump ship, so be it.

As the Tory party moves towards the centre under the inclusive David Cameron and New Labour continues to sprawl out over that territory under Gordon Brown, party differences will turn less on goals than on effective delivery and credibility. For that, style will matter. Mr Cameron has a long road ahead of him, but also a fair wind at his back.

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On the war in Iraq, America's presence there, steel and Canada's election

Dec 8th 2005
From Economist.com

The Economist, 25 St James's Street, London SW1A 1HG
FAX: 020 7839 2968 E-MAIL: letters@economist.com

The conflict over Iraq

SIR – You assert that the drop in support among Americans for the Iraq war shows that they have either "grown less tolerant of casualties, or doubt that the war on terror is as important as the struggle against communism was" ("Not whether, but how, to withdraw" November 26th). Body counts and ideology have little to do with it. Americans support a war when they feel threatened, which they initially did in Iraq because of the (erroneous) understandings about weapons of mass destruction and Iraq as a terrorist nexus. But once a threat is removed, Americans will still support a war if they believe it to be "right"; their leaders provide a competent game plan for the war's prosecution; and they get the truth about what is actually happening on the ground. Support for the Vietnam war endured for longer than support for the Iraq war simply because the questionable nature of Vietnam and the incompetence of America's leadership were hidden from the American people for so long. That is not the case in Iraq. Here, the reality has already begun to creep into the American consciousness. This explains why, as was eventually the case in Vietnam, the American people are now demanding that troops be pulled out of Iraq.

Roy Scutro
Acton, Massachusetts

SIR –*The Economist* says that we should stay in Iraq ("Why America must stay", November 26th). We have five goals in that country: keep out al-Qaeda; contain Iran; prevent Shia clerical power; restrain the Kurds; and maintain a united nation. It is ironic that these were Saddam Hussein's objectives too, but it is now American blood and treasure being wasted in a failed enterprise. Remaining in Iraq is a recipe for more disaster. The sooner we get out, the better for us and for Iraqis.

Robert Dujarric
New York

SIR – Some of us believe that Iraq was never a part of the war on terror in the first place and would rather refocus our efforts at actually finding those responsible for the September 11th attacks.

Alan Vorchheimer
New York

SIR – I would like to read your editorial positions on past conflicts. I'm sure you must have encouraged America not to abandon its allies in Vietnam. Without question, you had to have deplored Charles de Gaulle's "betrayal" of the French *pieds noires* in Algeria. Indubitably, you

pressured the French government to honour its commitment to its followers in Indochina. And had you been around in the late 18th century, I have no doubt you would have been a powerful voice in favour of the British monarchy keeping faith with loyalists in the American colonies.

Josiah Erickson
Seattle

SIR – The question is not whether the war on terror is important, but whether we trust the president to pursue it competently. Americans have grown to doubt that a bungled war against a largely secular dictatorship is winning us any points at all.

James Chapin
New York

SIR – I agree wholeheartedly that America must stay, but it is amazing that you did not once suggest that more countries should share the burden in the global fight against terrorism. When the Islamic insurgents have largely been quelled and democracy begins spreading throughout the Middle East, it will be noted how America stepped up to the challenge and saved the day, but without much help from anyone else.

Vladimir Vukmir
Dayton, Ohio

SIR – The responsibility for fixing Iraq does not lie with the people “who broke it”. Many of those people are in prison with Saddam and their responsibility will soon be fixed by an Iraqi court of law. Give thanks to America and her allies, who liberated Iraq from those evil men and are now busy helping Iraq with its reconstruction.

Scott Renner
North Andover, Massachusetts

SIR – It came as no surprise to find you equating the desire of ordinary Iraqis for America to leave their country with a formal request from the Iraqi government for them to do so. This is consistent with your continued valiant attempt to project (or pretend) that Iraq, and Afghanistan for that matter, actually have governments that exist other than at Washington's pleasure. If America, for its own reasons, does seriously move towards withdrawing its troops, I am willing to bet that the so-called Iraqi government, kept in place and protected by the American army, will skip the country so fast that there will be nobody left to ask if it wants troops to stay.

Sher Ali Khan
Mardan, Pakistan

SIR – America has not committed enough resources to fulfil civilian needs in Iraq. For example, the supply of electricity, water and sewage systems are unpredictable and need to be appropriately protected from attack. However, that sort of rebuilding is fantastically expensive. The fatal flaw in the Bush administration's thinking has been that victory can be had on the cheap. If it continues to put off telling taxpayers what the true cost of success will be, then John Murtha is right: we should get out sooner rather than later. A broader military presence that kills insurgents and civilians alike with overwhelming firepower will only lose us Iraqi friends and gain us fresh enemies.

Tom Moore
Menlo Park, California

SIR – In your assessment of the causes of the “mess” in Iraq, all you could muster were failed American policies and Donald Rumsfeld. Allow me to add a few more reasons for the failure. We can begin with Abu Musab al-Zarqawi and his band of jihadist sub-humans, who feast on Arab and non-Arab blood with equal relish. Then there are the governments of Iran and Syria, which finance and lend moral support to this mayhem. And let's not forget to include the more “moderate” Arab world, which has maintained a deafening silence as the insurgents slaughter children and other civilians. The list is not complete without mention of the Democratic Party's leadership, which has shamelessly denigrated America and its military in its grovelling pursuit of votes for future elections.

Robert Varney
Encinitas, California

SIR – Lexington defends George Bush against accusations that he lied us into war, but does so by submitting that his opponents' charge is “that he knew all along that Iraq possessed no weapons of mass destruction” (November 19th). This is a misrepresentation and a blatant attempt to redefine history. To be precise, the charge against Mr Bush is that he and other members of the administration said they knew for certain that Iraq had WMD, when in fact they did not. This is the lie.

Graham Crooke
Burlingame, California

SIR – Lexington records the deteriorating relationship between the administration and Congress, fretting that Mr Bush might be seen as deceptive and venal, or that the Democrats might be seen as craven, opportunistic buffoons. Lexington should also consider the possibility that each of those perceptions might be altogether accurate simultaneously.

Frank McCormick
Eastsound, Washington

ONLINE ARTICLES

The following correspondence refers to articles published only online

Steel pulse

SIR - Your article on the steel industry ("Steelmakers on a roll, until the next glut", Global Agenda, Economist.com, November 25th) is based on the premise that burgeoning Chinese steel production threatens to flood the world steel market. Your analysis ignores the qualitative difference between Chinese steel and that produced by the world's top five firms. Chinese metal is lower-quality, and thus uncompetitive in the global, quality-conscious steel market.

Arun Khanna

Canadian comparison

SIR - I am curious about your statement that Canada's Conservatives resemble America's Republicans in their fiscal conservatism ("No confidence, no alternative?", Global Agenda, Economist.com, November 29th). Try as I might, I am hard-pressed to identify even one thing about the past five years of Republican government that suggests fiscal conservatism.

Paul Novosad

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Economist.com WORLD EUROPE

The EU's agricultural policy

Europe's farm follies

Dec 8th 2005 | LONDON AND PARIS
From The Economist print edition

AFP

Why the European Union retains its strange fondness for farm subsidies

Get article background

NEXT week sees both a European Union summit in Brussels devoted to the EU budget and a Hong Kong ministerial conference to review the Doha round of world trade talks. At first sight the two meetings might seem unconnected. But they share a crucial common thread: the attachment of the rich West, especially Europe, to farm subsidies. Indeed, the EU's common agricultural policy (CAP) will lie at the root of many of the arguments in both Hong Kong and Brussels.

Not that the CAP is the only problem in either set of negotiations. Big disputes also loom over industrial tariffs and trade in services. Even in agriculture, where the EU has come under attack for the meagreness of its offer to improve market access for farm products, it is by no means the only offender (see article). As for the EU budget, many political leaders gathering in Brussels next week are more concerned about the proposals by the current British EU presidency to cut regional aid and other spending than about France's obstinate defence of the CAP. And most want bigger cuts in Britain's EU budget rebate.

The CAP costs European taxpayers over €40 billion ($47 billion) a year, or around 40% of the total EU budget. That is a huge sum, given that farming accounts for less than 2% of the EU's workforce. Yet the share of the budget devoted to CAP spending has fallen sharply: 20 years ago, it was 70%. Moreover, the CAP has been reformed significantly, most recently in 2003, when a deal was struck to complete the switch of most CAP subsidies from price supports to direct income payments. After this reform has been fully implemented, some 90% of EU farm support will be classified as “non trade-distorting”.

That has not dampened demands for more change, however. The world's big agricultural exporters want greater access to the EU market, meaning sharply lower tariffs on farm imports. Within the EU, countries such as Britain that get few farm subsidies want them cut further; those such as France that are big net recipients are determined to preserve them. The CAP is criticised even by those who want to protect Europe's countryside and its small farmers. As much as 80% of its subsidies go to the richest 20% of farmers, and—as recently published figures have shown in graphic detail—the biggest single recipients of CAP payments tend to be giant agribusinesses and big, wealthy landowners.

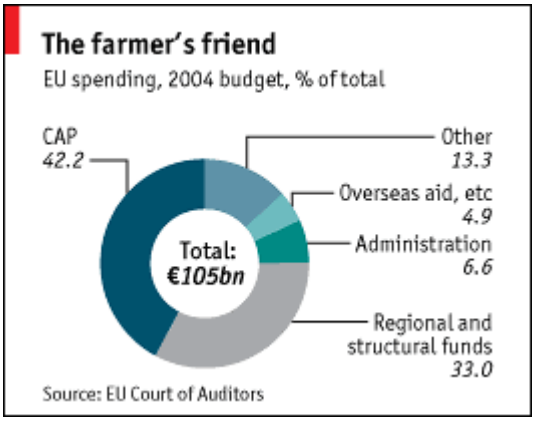
In the face of such attacks, the French, in particular, remain defiant. President Jacques Chirac, who cut his political teeth as a farm minister, insists on sticking to a deal that he struck in October 2002 with the then German chancellor, Gerhard Schröder, to freeze CAP spending in real terms until 2013. That deal was subsequently endorsed by all EU leaders, including even Britain's Tony Blair. Yet it is not only Mr Chirac who supports the CAP: so does the entire French political class. Given agriculture's shrinking role in the French economy, it is worth asking why.

The fat of the land

On a wooded plateau in eastern Normandy, near the village of Grossoeuvre, Didier Lefebvre keeps 110 dairy cows and farms 45 hectares of maize, wheat, rapeseed and flax. He is the model of a modern French farmer. His milking machines are computer-monitored. An automatic cleaning machine pushes muck across his stalls for recycling. He keeps 10,000 litres of milk in his cooling vat, and French literary classics on his bookshelves. A large chunk of his net income comes from the CAP.

France is Europe's biggest farm producer and the biggest single beneficiary from the CAP, taking around a quarter of all EU farm subsidies. Farmers such as Mr Lefebvre help to supply what is both Europe's biggest agri-food business and France's leading industry. From the fertile plains of the Paris basin and Picardy to the olive groves of the Mediterranean, France's agricultural variety makes it in many ways a test case for the changes in European farming.

In other ways, however, France is different. When the government says, in both the EU budget and the Doha negotiations, that it cannot touch the CAP, it is partly making a point about sticking to the October 2002 deal. “We all agreed to the 2002 reform," says Catherine Colonna, France's Europe minister, “and it cannot be changed until 2013.”



But there is also a more general resistance to reform that reflects the special place of farming in the French imagination. Its importance runs deeper than agriculture's tiny 4% share of the workforce or its 3% share of GDP. It is not by accident that French politicians rush each year to the Paris Agricultural Fair to pose for the cameras with heaving bulls.

Why are the French so infatuated by farming? And what would happen to French farming if subsidies were slashed?

The answer to the first question is a mix of tradition, nostalgia and Gaullist politics. Food in France is not just a way to fill the belly: it is part of the national identity. France's regionally based gastronomy emerged from the varied local produce of different *terroirs*. Across France, twice-

weekly street markets that sell everything from skinned rabbits to whole unpasteurised bries are not rustic marketing inventions but ancient exchanges. The French are fussy about the quality and origin of what they put in their supermarket trolleys, often preferring to pay more at a butcher or baker than to buy stuff cellophane-wrapped.

Many town-dwellers, besides, still have living relatives who till the land, and memories persist of post-war food shortages. Pride in agricultural self-sufficiency, with the farmer as folk hero, is strong. De Gaulle once said, “A country that cannot feed itself is not a great country.” His political descendants keep the faith. Mr Chirac was first elected to parliament for rural Corrèze, and was farm minister under Georges Pompidou. The ruling Gaullist right sees food self-sufficiency, like the nuclear *force de frappe*, as a centrepiece of France's geopolitical independence.

Christine Lagarde, France's trade minister, recently described farming as “fundamental to our identity”. Even reformers such as Nicolas Sarkozy, the interior minister, back farm protection. The country's biggest farm union, the FNSEA, has powerful regional roots and a lobbying network that stretches from local elected officials to senators, 8.5% of whom are farmers.

Would any of this really be at risk if the protection that French farmers enjoy, through tariff barriers and direct subsidies, were radically dismantled? The government foresees catastrophe. Dominique Bussereau, the farm minister, told *Les Echos* recently that “almost all” farms would disappear and that tens of thousands of jobs would be at risk. He exaggerates. But the answer is more nuanced than zealous liberalisers like to think.

Rural exodus

Radical reformers concede that the number of farms in France would shrink dramatically. But this is already happening. France has 550,000 farmers—a quarter of the number in 1950—working fewer than 400,000 “professional” farms. Between 1993 and 2004, the number of arable farms fell by nearly a third. This is partly due to earlier CAP reforms that began the switch of support from prices to direct payments. Fearful that this might herald more cuts, many farmers expanded their land to keep their farms viable. Others gave up or went into retirement.

AFP

Bull technique: “Seducer” de Villepin, “Saint” Sarkozy, “Tough Guy” Chirac

Today, direct CAP subsidies make up, on average, 90% of a farmer's pre-tax income. That suggests that the average farmer would barely scrape a living without such aid. But the figure masks wide variations. For market gardeners, the share is below 10%; for quality wine-growers, it is 8%. Over a quarter of payments go to just 5% of farmers, according to the Groupe d'Economie Mondiale (GEM) at Paris's Institut d'Etudes Politiques. It calculates that the biggest 30 farmers—among them, Prince Albert of Monaco—get an average of over €390,000 each a year. That is 217 times the average received by the 180,000 or so smallest farms, which make up 40% of the country's total.

“The scandal is that these inequalities will be maintained by the latest CAP reform,” says Pierre Boulanger of the GEM. The EU's decoupling of aid from production, which takes effect in France

next year, relates future subsidies to what each farm produced in 2000-02. The idea is to get rid of artificial incentives to produce. But the upshot is that big farmers will continue to get the most, and that small farmers are left most vulnerable to more reforms.

What might the French landscape look like if all subsidies and external tariffs were drastically cut? Estimates suggest that France would lose between a third and two-thirds of its farms. A sustainable industry might consist of just 150,000 farms, according to a recent study by the Institut Montaigne, a think-tank. These would range from big, efficient producers, such as lowland cereal, dairy and beef farmers, through the fruit, vegetable and wine-growers who already get very little help, to niche producers of "*appellation d'origine contrôlée*" and organic foodstuffs.

The big lowland farmers are already among Europe's most competitive. The latest talk among them is about a new satellite-controlled combine harvester. Indeed, Patrick Messerlin, director of the GEM, argues that it is in France's interests to reduce CAP protection, since its farmers would be better placed to compete than those elsewhere. Back in Normandy, where farmers face a mountain of paperwork tied to the latest CAP reforms, not to mention the new environmental tasks these payments now require, farmers are already preparing for the day when subsidies will be cut again. Mr Lefebvre concedes that, while cereals would suffer, his dairy farm would manage. "French farming will survive," he says, "because French farmers are dynamic and adaptive."

Beef farmers might have more trouble. Increased imports from countries such as Argentina or Brazil would force French producers to look more to the quality end of the market. Already, "quality" foodstuffs (from small, local or specialist producers) account for some 20-30% of French consumption. Even in hypermarkets, French shoppers can choose between quality cuts of French Charolais beef or cheaper stuff of uncertain provenance. The more that consumers, in France and abroad, move upmarket, the more French producers will stress this strength.

Would the French countryside lose its bucolic look, and give way to vast American-style fields bereft of hedgerows or quietly grazing herds? Such concerns are widespread. "If you take the cows out of the Massif Central," asks Xavier Beulin of the FNSEA, "who would go there to visit?" The 2003 CAP reform stresses farmers' role as rural park-keepers, not hardy producers, a change that some consider emasculating. And is it not the quaint farms, as much as the rugged landscape, that holidaymakers in search of authenticity want to see?

In reality, the average French arable farm has already grown in size, by 40% over the past decade. Yet the average French farm is less than a quarter the size of the average American farm. Even the plains of Picardy do not resemble the vast flat spaces of the American mid-west. Moreover, the French farm-property market is regulated, and farm size is controlled. Upland farmers in marginal terrain, such as the Massif Central, already find it hard to survive without taking up activities such as tourism. Keeping such farms going, for reasons of tourism or the rural economy, has become a social-policy choice.

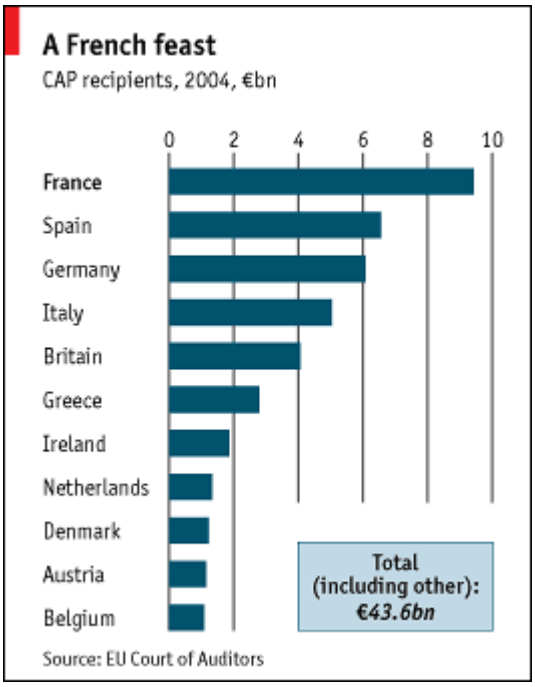
In any event, nobody is seriously proposing the abolition of farm protection altogether. What is clear from French farming, however, is that there is still room to reduce it, as long as it is managed carefully for the most vulnerable small farmers. At the very least, there is a strong case for putting a ceiling on payments made to individual big farmers. The long-term outlook for world agricultural demand is strong, and competitive French farmers are well placed to take advantage of it.

There are some signs that French public opinion is beginning to change. Fewer young people now have any family links with the countryside. More voices are speaking out against the power of the French farm lobby. Medef, the French employers' federation, has urged the government not to let the Doha round fail since, for industry and services, a deal is "vital for growth and jobs in France". Yet the governing class remains, for now, as wedded to farm protection as ever.

Brussels sprouts

That is the background against which to assess France's approach both to next week's trade talks and to the EU summit on the budget. But the budget is also emerging as the last and biggest test of the current British presidency of the EU, which comes to an end this month. If there is no deal in Brussels, Mr Blair will be widely criticised for achieving little during his presidency. Indeed, fear of such criticism has become the biggest weapon wielded by other countries hoping to extract more concessions from the British prime minister.

What Mr Blair wanted to do was to achieve a more rational budget—or, more modestly, to set out a process that might lead to one. As he put it in his speech to the European Parliament in June, "A modern budget for Europe is not one that ten years from now is still spending 40% of its money on the CAP." Five months on, those who hoped for radical reform to create such a budget have been disappointed.



In the hope of averting rows, the British delayed their tabling of a budget compromise until this week. Yet when it came, it left CAP spending more or less untouched: a token cut of less than 2%, which will actually raise its share of the budget to 44%, plus a proposal for a review in 2008. Even this is arousing fierce resistance in Paris, where it is seen as just one more attempt to reopen the 2002 deal to leave the CAP unchanged until 2013.

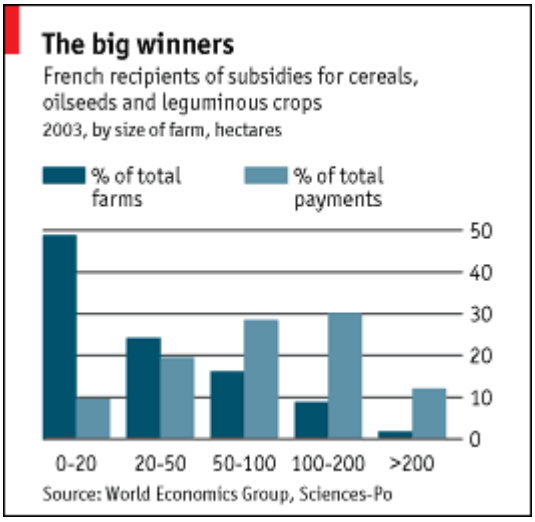
The rest of the British plan for the EU budget has run into almost as much trouble. It revolves, yet again, around the CAP, and the rebate Britain receives because, as a country with relatively few farmers or poor regions, it gets back so much less than it contributes to the budget. In June, Mr Blair was one of five EU leaders who rejected a compromise put forward by the then Luxembourg EU presidency. That compromise would have frozen the British rebate at €4 billion a year, instead of letting it rise to some €7 billion. Yet Mr Blair conceded that he was at least willing to put the rebate on the table.

Now, because he has been unable to secure any more farm reforms, Mr Blair proposes to trim the British budget rebate only a little. The Luxembourg plan to freeze the rebate would have cost Britain around €3 billion a year and rising. The British presidency plan would cut the rebate by €8 billion in all (a shade over €1 billion a year). The aim, according to officials, is to leave Britain's net contribution more or less equal to that of France and Italy, at some 0.4% of GDP—whereas the Luxembourg proposal would have left Britain paying significantly more.

By shaving the rebate, Mr Blair can claim that Britain will pay its fair share towards the cost of EU enlargement to central Europe. But he has annoyed those countries by also suggesting a cut of almost 10% in the regional and structural funds that they were hoping to get from the budget. That, plus cuts in administrative and other spending, has enabled the British to pare the budget down from the 1.06% of EU GDP proposed by Luxembourg to 1.03%. By 2013, on the British plan, the budget should be below 1% of EU GDP.

This austerity is designed to win the backing for the budget of other big net contributors such as Germany, the Netherlands, Sweden and Austria. As for the central

Europeans, Mr Blair is calculating that, although they will squeal at the 10% cut, they may be placated by proposals to cut the red tape that delays grant payments—and that they would prefer a smaller budget to be agreed now than the alternative of no budget deal at all. Thus the British hope that, by next week, there will be enough momentum to secure an agreement, even a bad-tempered one.



The odds are still against any budget deal being struck. Because it requires unanimity, only one political leader at next week's summit has to say no. And there is plenty of dissatisfaction around; indeed, the British have been forced to promise to float a revised plan next week. Yet the real objection to the British proposals is neither that they are too cheese-paring, nor that they hit the poor central Europeans, nor that they are skewed to protect the British rebate. It is that, once again, they fail to advance the cause of CAP reform, which remains as urgent as ever.

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The poorest part of America

Not here, surely?

Dec 8th 2005 | JUDITH BASIN, MONTANA
From The Economist print edition

AP

Want to see America's new ghetto? Follow the Rockies northwards towards the Great Plains

IN 1859, a young schoolteacher in Illinois who would later become a famous explorer, John Wesley Powell, used to make his students sing: “Our lands are broad enough. Have no alarm. For Uncle Sam is rich enough to give us all a farm.”

Uncle Sam indeed obliged. In a series of Homestead Acts, pioneers staked 270m acres (110m hectares) of land. Even after the fertile ground had been snapped up, the settlers still kept coming. In the first two decades of the 20th century, they poured into the less productive areas—eastern Montana, the western Dakotas and western Nebraska. They endured the hardships of Job. Most were driven away, but the obstinate stayed. And, alas, they have struggled ever since.

No place so demonstrates the shaky economic state of rural America as the northern Rockies and western Great Plains. Virtually all of the 20 poorest counties in America, in terms of wages, are on the eastern flank of the Rockies or on the western Great Plains (see map and table below). Not one of the ten poorest counties in this region issued a housing permit in 2002. A couple of years ago, Lester Thurow, a Montana-born economist at the Massachusetts Institute of Technology, observed that when he got his doctorate in the mid-1960s, he associated regional poverty with the South. But he was now certain that, before he retired, “regional poverty will be a phenomenon of the northern Great Plains.”

There are two unusual things about the deprivation in this region. First, it is largely white. The area does include several pockets of wretched Native American poverty, but in most areas the poor are as white as a prairie snowstorm.

Second, most people do not think of themselves as poor. The landscape certainly does not cry scarcity. Judith Basin, for instance, is a county of tidy ranches and vast vistas. Cumulus clouds project great shadows that sweep over patchwork fields planted with alfalfa and wheat. To the west, the Little Belt Mountains glow blueish-green. It might almost be paradise for those who want no hills to climb.

It is only when you turn off the main road and come upon a pattern of deserted homesteads that the reality sinks in. In 2003 nearly a sixth of Judith Basin's residents lived below the federal poverty level for a family of four of $18,400. The median household income was $26,900 (against $43,300 nationally). Crime is low (meth, the scourge of many rural counties, has made only minimal incursions here), but it is still a community in decline.

Judith Basin County has lost about 6% of its population in the past four years. Around ten pupils graduate from its three high schools each year. The population of the county seat, Stanford, reached its zenith of 615 in 1960. Now it is 430 and “that's if everyone is home”, as one county commissioner puts it. Larry Swanson, a University of Montana economist who has spent years studying Great Plains and Northern Rockies demography, says the picture is dire. “We are seeing a re-accelerating of the population decline. After the kids left in the 1980s and 1990s, things sort of levelled off. Now it's just plain attrition. People are dying.”

Poor form

Average wages and salaries, bottom 20 US counties, federal tax returns filed, 2003

County	State	Average wage, $	National ranking*
Meagher	MT	13,485	1
Petroleum	MT	13,636	2
Carter	MT	13,657	3
Judith Basin	MT	13,811	4
Garfield	MT	13,860	5
Slope	ND	13,955	6
Keya Paha	NE	14,084	7
Golden Valley	MT	14,120	8
Liberty	MT	14,288	9
Wheatland	MT	14,441	10
Grant	ND	14,521	11
Catron	NM	14,598	12
Sheridan	ND	14,928	13
Saguache	CO	15,189	14
Sierra	NM	15,421	15
Loup	NE	15,429	16
Divide	ND	15,592	17
Corson	SD	15,622	18
Faulk	SD	15,786	19
Harding	SD	15,831	20

*1 = lowest. From national total of 3,140 counties

Source: Transactional Records Access Clearinghouse

It is fairly common nowadays for rural counties across America to lose people: roughly one in four did in the 1990s. What is unusual about this region is that the downturn has not inspired much zeal for invention. Granted, this region suffers from “the curse of flat counties”. It lacks the mountains, rivers or dramatic geography that attract wealthy retirees or budding software entrepreneurs. Not having a vital urban area also hurts. The northern Great Plains, which covers roughly 280,000 square miles, includes only one decent-sized city—Billings (whose population is 97,000), though Lincoln, Omaha and Sioux Falls are on its eastern edge.

Yet even if you look only at agriculture, the region has plainly failed to adapt to a world in which grain and cattle are cheap. Pioneer mythology has a good deal to do with this. The walls of the Museum of the Northern Great Plains in Fort Benton, Montana, carry biblical phrases (“They shall beat their swords into ploughshares”) or Thomas Jefferson's maxim of divine preference (“Those who labour in the earth are the chosen people of God”). But this mythology has led to a paralysing respect for antiquity.

There are a few signs of innovation. Montana and North Dakota are both trying to grow more organic crops, for which margins are higher, and state coffers are swelling because of the energy boom. But little effort has been made to process foods rather than just grow them. For instance, both North and South Dakota are leading producers of wheat and soyabeans. Yet according to the Bureau of Labour Statistics, the two states have less than 1% of their population employed in the food-processing industry. The crops go out by the truckload to provide jobs elsewhere.

How does the region survive? For all the brouhaha about independence, it leans heavily on the federal government. In 2003, the government spent an average of $10,200 per person in Judith Basin. North Dakota counties averaged $9,000. Most of this comes in the form of farm subsidies. In 2003, the ten poorest counties in the United States each received an average of $5.5m in federal price supports and disaster payments, according to the Environmental Working Group, which tracks federal farm payments.

Are these subsidies a curse? Certainly not in the eyes of the area's politicians, who are elected to preserve them. The figures for some states have tripled since 1995. These hand-outs certainly help to keep many farms alive (and they mean that the counties do not do quite as badly when you look at their overall incomes, as they do for wages and salaries). But they are hardly spawning a healthy economy. A report by the Federal Reserve Bank of Kansas City in March pointed out that the counties most dependent on farm payments were mostly those with the weakest job figures and the weakest population growth.

Moreover, the cash is being distributed in an increasingly unequal way. In 2004, 405 farmers in Judith Basin County received $4m in farm subsidies. That would imply an annual hand-out of $9,900 each, but the average for the top 20 recipients was $55,850 apiece. More of the money is being grabbed by big farmers. In one way such consolidation is welcome, but it hardly squares with the egalitarian ambitions of the Homestead Acts.

This dynamic of more money going to fewer people is not new, but, until recently, few have had the nerve to point it out. Four years ago, however, in a now famous study called “Why Invest In Rural America?”, Karl Stauber of the Northwest Area Foundation claimed that farm subsidies had done nothing to improve the economic viability of America's rural communities. Of the 145 counties in the region, 123 had lost population or had grown at below 1% a year since 2000.

The primary difference between this region and other bits of rural America is perhaps denial. Just as rain never did follow the plough, modern jobs do not follow high-cost subsidised food production. The era of the small arable farmer and even of the modest-sized rancher is over. Indeed, it has been for at least half a century (though if you say that in a bar in the Dakotas or Nebraska, be prepared to duck).

As for the idea that rural America feeds the world, the truth is that it no longer even feeds America. Americans buy ever more of their food from more fertile and cheaper places like Brazil (though they have to pay more for it than they should, thanks to America's high tariffs). Meanwhile, providing this huge, sparsely populated area with services such as health care, schools and transport looks an increasingly expensive proposition for an ever more urban and suburban country. The years when Uncle Sam “is rich enough to give us all a farm” are drawing to an end.

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Unions in Texas

There's money in mopping

Dec 8th 2005 | AUSTIN
From The Economist print edition

Janitors band together in Houston

Get article background

AP

Tomorrow's Jimmy Hoffa

UNIONS have never had much luck in the South. The region is home to Wal-Mart and other arch-foes of organised labour. For years, car plants have been built in Tennessee or Alabama to escape the grip of Detroit. So last week's announcement that nearly 5,000 janitors (cleaners and caretakers) in Houston were joining the Service Employees International Union (SEIU) was a rare breakthrough. Julius Getman, a professor at the University of Texas, thinks it is the largest union victory in the South in decades.

The SEIU takes a different approach to organising. It has organised janitors at several big companies at once. Rather than mounting a campaign at each workplace separately, it will negotiate one big industry-wide contract. This, in theory, eliminates each cleaning company's fear of being undercut by competitors if it allows higher wages. The companies agreed to stay neutral. The strategy bypasses the National Labour Relations Board, which usually oversees the unionisation of workers. That is a bonus in a place like Houston, where undocumented workers would rather not get the government involved.

Janitorial success has come to be quite a hallmark of the SEIU which, with 1.8m members, is one of the largest unions in the country. The “Justice for Janitors” campaign has been going for 20 years. The SEIU claims triumphs from Los Angeles (raising pay by more than 25%) to Chicago (getting employer-paid health benefits). Pay talks will start soon in Houston, and the SEIU will be under pressure to deliver. The starting point could hardly be lower. According to the union, Houston's janitors earn an average of $5.30 an hour, less than half what their counterparts in Philadelphia get.

Whether the Houston milestone will lead to other triumphs in the South is an open question. Nonetheless, it is a small boost for a movement that has been going through tough times recently. Union membership is in steep decline in the private sector. This summer the SEIU and a few other unions split from the AFL-CIO, America's big labour federation. Since then, the SEIU has been pursuing new strategies to boost its membership.

One of the more intriguing ideas is a contest (at www.sinceslicedbread.com) for the best proposal to boost the economy and create good jobs. It closed this week with over 22,000 entries. Our favourite is national mandatory nap time, but others include teaching personal finance in high school and tax breaks for hiring workers over 40. Encouraging creativity in itself will do organised labour no harm at all.

Labour disputes

Off the tracks

Dec 8th 2005 | NEW WALK CITY
From The Economist print edition

Another transport strike in New York

AP

You miss it when it stops

THE 7m New Yorkers who use the subway and buses may have to dust off their bicycles and lace up their running shoes. The transport workers' contract is due to expire on December 15th. The Metropolitan Transportation Authority (MTA), the state agency that runs the subway and bus lines, and the TWU Local 100, the 34,000-strong transport-workers' union, are still tussling over a new contract. The union will vote on December 10th on whether to strike if an agreement has not been banged out by next Thursday.

Roger Toussaint, the union leader, wants a big chunk of the MTA's projected $1 billion surplus to go towards wage increases. He is outraged that the MTA should have allocated some $450m of this money to pension plans before contract negotiations had even started. But these funds are not going to last long anyway; they come from a temporary increase in revenue from property-related taxes and, according to Nicole Gelinas, an editor of the Manhattan Institute's *City Journal*, will be gone in about 18 months. At that point, the MTA will be looking at an annual deficit of close to $1 billion, caused in part by rising health-care and pension costs.

The MTA's demands are mostly modest. It wants employees to help pay health premiums; it wants to raise the retirement age from 55 to 62; and it would like increased productivity in return for higher wages. Subway operators, it thinks, could also do conductors' jobs, and former token-booth workers, now “customer-service agents”, might do some light cleaning. Mr Toussaint not only thinks these ideas demoralising, but fears that merging duties could put passengers at risk.

Several of New York's municipal employee unions, such as the police and teachers, have recently negotiated new contracts. They included moderate wage increases coupled with “give-backs”: fewer days off, longer work days, smaller work crews and lower pay for new recruits. The private sector has also trimmed health and retirement benefits. The transport union is, in comparison, being greedy. Last week, union leaders rejected a proposal to submit to binding arbitration. Strikes by public employees are illegal under New York state's Taylor Law, and striking workers face stiff fines.

If they do opt to walk out, they won't find much sympathy among strap-hangers. On the other hand, the MTA is not without blame for the general frustrations of commuters' lives. The authority has closed token booths and removed some train conductors. It has also put up fares, and plans to do so again. Track fires crippled the system earlier this year and delays on subway lines are common.

The last strike in 1980 lasted 11 days and cost New York businesses $1.1 billion. Sales in Fifth Avenue department stores alone dropped 30%. The cost this time, in the middle of the holiday shopping season, would probably be higher. During the last strike, New Yorkers walked, biked, carpooled and skateboarded to work. The rich chartered helicopters and yachts.

City Hall has drawn up a strike contingency plan which would ban cars without passengers from entering Manhattan. It plans to set up carpool areas in local baseball stadiums and to allow taxi drivers to pick up extra passengers. During the 2002 contract negotiations, when a strike also looked imminent, Mayor Michael Bloomberg, who goes to work on the subway, bought a new “strike bike”, which he later gave away to a needy child. So far, he has not bought a new one. Here's hoping he won't have to.

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Tom DeLay

Still entangled

Dec 8th 2005 | AUSTIN
From The Economist print edition

The suspended House majority leader seems unlikely to regain his post

Reuters

He is not universally loved

HE HAD hoped that troubles in Travis County would end this week. No such luck. On December 5th, a judge dismissed one charge against Tom DeLay, of conspiracy to violate the election code during the 2002 state elections. Two other election-related charges, of money-laundering and conspiracy to launder money, were allowed to stand. A trial looms, in January at the earliest.

Mr DeLay's camp claims that the partial dismissal "underscores just how baseless and politically motivated the charges were". But this is grim timing for the former House majority leader from south-west Houston. He looks unlikely to climb back into the leadership position which, according to House rules, he had to resign when he was indicted in September. When Congress returns from recess in late January, the Republicans will surely elect a new majority leader.

Ronnie Earle, the Travis County district attorney, has 15 days to appeal against the ruling and try to re-instate the charge that the judge dismissed. If he does so, the proceedings could drag on for months, says George Dix, a law professor at the University of Texas. For Mr DeLay, hopes now rest on his lawyers' remaining motion to dismiss the case on the basis of alleged prosecutorial interference with the grand jury. The judge, a folksy old gentleman from San Antonio, wants to see the evidence of this.

Even if Mr DeLay somehow shakes free of the Texas charges before Congress returns, rebellious murmurings are growing louder in Washington. With a wave of ethics scandals breaking over the Republicans, some colleagues may want to keep a safe distance. Mr DeLay has been close to Jack Abramoff, a former lobbyist now under investigation for influence-peddling. Michael Scanlon (a former DeLay aide), pleaded guilty last month to conspiring to bribe public officials. Hardly an auspicious circle for a congressional leader, who also faces a rough re-election campaign next year.

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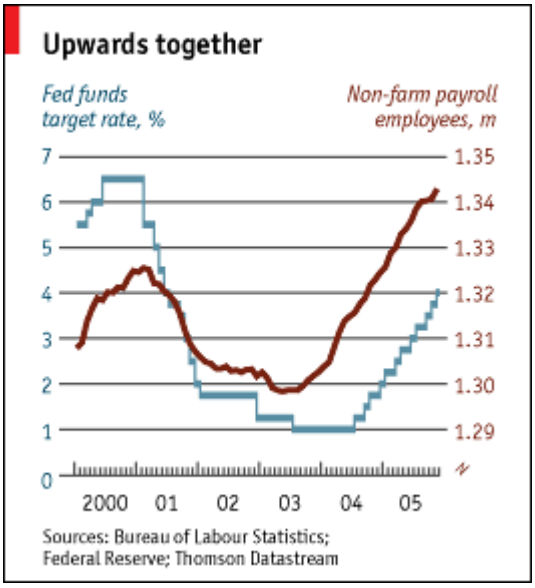
The booming economy

What is it on?

Dec 8th 2005 | NEW YORK
From The Economist print edition

It just keeps on confounding the pessimists

Get article background



ECONOMISTS have long warned that America's fast-growing economy has shaky underpinnings: the jobs market has lagged the recovery; America's current-account deficit has swollen to record levels; consumer spending is increasingly tied to prices in the frothy housing market (see article); oil prices are at their highest level in real terms since the early 1980s; and much, much more. But someone plainly forgot to tell the economy that it was supposed to be in trouble.

Figures released by the Department of Commerce on November 30th show that the American economy grew at an annualised rate of 4.3% in the third quarter, revised upward from a preliminary estimate of 3.8% issued in November. That is despite the ravages wrought by hurricanes in August and September, which not only destroyed a major port city but closed down a big chunk of the energy industry.

Better still, the following week, the Department of Labour reported that over the same period, productivity had grown by 4.7%. Meanwhile, payrolls, which barely grew at all in September and October, had finally posted a respectable 215,000 new jobs in November. Little surprise, then, that George Bush is once again talking up the economic data, and seeking to claim some of the credit for his policies, particularly tax cuts.

Sadly for Mr Bush, it appears someone also forgot to tell the voters that the economy is doing well. Polls show approval ratings for the economy on a par with the rest of his dismal numbers. Employment has generally lagged behind the economy. Payroll employment troughed in May 2003, 18 months after the recession ended. Since then, the economy has added 4.5m jobs, as Mr Bush pointed out this week—and unemployment currently hovers around 5%. But wage growth has been sluggish, implying a soft jobs market.

The economy is also posing some difficult questions for the Federal Reserve, whose monetary committee meets next week. It has steadily raised interest rates to fight off inflation (see chart). But where does it want to stop? The minutes of the November meeting suggested that the Fed might stop raising rates quite soon. The debt markets quickly decided that 4.5% might be a more likely final target for interest rates than previous estimates of 4.75-5%. Now the new numbers are making everybody reconsider that—especially as Ben Bernanke, Alan Greenspan's replacement, may be looking for an excuse to prove he is tough on inflation when he takes office in January.

Higher oil prices may not have translated into slower economic growth yet, but they are creating inflation. It ran well above 4% in September and October. On the other hand, core inflation, which excludes volatile energy and food prices, is still relatively modest. With gasoline dropping back to $2.15 a gallon from nearly $3 in September, this eases fears that high oil prices will feed through into the broader price index. And the stellar productivity figures increase the pace at which the economy can grow without causing inflation. So Mr Bernanke will not want to be too tough. For now the Fed, like the economy, defies easy prediction.

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Extraordinary renditions

So what's all the fuss?

Dec 8th 2005
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America seeks, but fails, to quell the uproar in Europe over CIA shenanigans

Getty Images

A shadow remains

THE European left has long treasured the myth that CIA agents snatch people off the streets and whisk them off to covert prisons around the world for harsh interrogation. Now, for the first time, America has admitted that at least part of this is true. For decades, the United States—and other countries—have used "renditions" to transport terrorist suspects from the country where they were captured to third countries "where they can be questioned, held or brought to justice", Condoleezza Rice declared this week.

However, the secretary of state insisted at the start of a five-day trip to Europe, that the United States "does not permit, tolerate, or condone torture under any circumstances". It is American policy to comply with its treaty obligations, including those under the UN Convention Against Torture, of which it is a signatory. America is a "country of laws" and believes in the rule of law, she said. It has always respected, and will continue to respect, the sovereignty of other countries co-operating with it in its war on terror.

Ms Rice's aim was to reassure America's European allies, still fuming over reports that their own airspace and territory had been used by the CIA for its covert operations, including secret prisons. Alas, such is the suspicion about America and its treatment of terrorist suspects following Guantánamo Bay and Abu Ghraib that her hosts immediately scoured her meticulously crafted declaration for loopholes. Worse, they found plenty of them.

Ms Rice said, for example, that America does not use other countries' airspace or airports to transport detainees to a third country where they "will be tortured". But the Convention Against Torture makes it unlawful to transport anyone to a country where there are "substantial grounds" for believing they might be tortured.

Ms Rice refused to confirm or deny the existence of secret CIA prisons for interrogating terrorist suspects in Europe. It might compromise the success of intelligence, law enforcement or military matters, she explained. But, given her admission that detainees have been transported to third countries for interrogation, the presumption must be that undisclosed detention centres do exist—or have done in the past—where such interrogations take place. Why else place them outside America and keep them secret?

The uproar was provoked by a report on November 2nd in the *Washington Post*. It claimed to have evidence of covert CIA camps in at least eight countries, some of them in eastern Europe. Poland and Romania, the likeliest suspects, both deny the charge. ABC News, citing past and present CIA

officials, say those camps, allegedly containing 11 top al-Qaeda suspects, have now been moved to north Africa.

Under the Geneva Conventions, a country involved in an international armed conflict must notify the International Committee of the Red Cross (ICRC) of anyone it is holding prisoner and allow it to visit him. But as the “war on terror” is not classified as an international conflict, the organisation can only “offer its services” to monitor American camps—it has no right of access. The Bush administration has let the Red Cross into Guantánamo and prisons in Afghanistan and Iraq, but it has refused to reply to repeated requests for notification of, and access to, undisclosed detention camps.

Ms Rice insists that the United States always respects the “sovereignty” of other countries. Where a foreign government chooses to co-operate in a rendition, this is perfectly permissible under international law, she says. This is correct, provided that the detainee has not been illegally abducted, and that he is not being sent to a country where he may be maltreated. Helping another nation to violate international law is itself a violation of the law.

European allegations of “hundreds” of CIA “torture flights” to a new “Gulag Archipelago” in eastern Europe are “so ludicrously overblown as to be laughable”, American officials protest. Privately, they imply the Europeans are hypocrites: many of those now grousing about America’s anti-terrorist policies have acquiesced in CIA operations on their territories.

All this is probably true. But snatching people off a foreign country’s streets and holding them incommunicado in an undisclosed place without charge for months, even years, without even their families’ knowledge, is unlawful, whether or not torture is involved. Such hidden detentions are explicitly banned under a new Convention on Enforced Disappearances, now being drawn up by the UN. They would also be outlawed under American law in Senator John McCain’s proposed bill prohibiting torture or other cruel, inhuman or degrading treatment by American military personnel or intelligence agents wherever they are.

Some administration officials have argued that the Convention Against Torture applies only to acts carried out within America’s territorial jurisdiction. Critics allege that this explains why so many of America’s interrogation centres—including Guantánamo—are beyond its borders. Dick Cheney has fought hard against Mr McCain’s amendment, it seems, precisely because it would remove any doubt, banning the use of cruel and inhuman techniques everywhere and by everyone.

This week, Ms Rice seemed to change course: she said that the UN ban on the torture or cruel treatment of detainees applies to all American personnel (including the CIA) throughout the world. The White House insisted this is “existing policy”. But if the secretary of state is right, why on earth is the vice-president fighting to keep the CIA out of the McCain ban?

During Ms Rice’s visit to Berlin, Angela Merkel, Germany’s new chancellor, announced that the United States had “accepted” that it had “erroneously taken” a German citizen to a jail in Afghanistan. Khaled al-Masri, who is now suing the CIA for wrongful imprisonment, claims to have been abducted by American agents while on holiday in Macedonia with his family in 2003. In Afghanistan, he says, he was held for five months and tortured, before being released without charge after it was discovered that he had been confused with an al-Qaeda suspect of the same name. While refusing to comment on Mr Masri’s case, Ms Rice confessed that “any policy will sometimes result in errors”.

The Europeans are not the only ones who need convincing. This week, Louise Arbour, the UN’s high commissioner for human rights, warned that the absolute ban on torture could become a casualty of the “war on terror”. Without naming the United States, she criticised “governments in a number of countries” who were claiming that the world had changed and that the old rules no

longer applied. No credible case for this had been made, she insisted. Ms Rice has work to do.

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Justice at home

Half free

Dec 8th 2005 | TAMPA
From The Economist print edition

A professor charged with helping terrorism is found not guilty—sort of

IT WAS not the ending expected in one of the more high-profile cases in the war on terror. On the other hand, it may not be an ending at all. On December 6th, Sami Arian, a professor at the University of South Florida who was charged with being a fundraiser for Palestinian Islamic Jihad (PIJ), was found not guilty on eight of the 17 counts against him. The federal jury remains deadlocked on the other nine—so Mr Arian, a conspicuously fierce critic of American policy in the Middle East and of Israel, will stay in prison while the government considers a retrial.

Two of Mr Arian's fellow defendants, Sameeh Hammoudeh and Ghassan Ballut, were found not guilty on all counts, while a third, Hatem Fariz, got off on 25 charges, but with the jury deadlocked on another eight. The prosecution had tried to prove that Mr Arian had raised money for charities and then funnelled it to the PIJ; but several of its own witnesses contradicted this.

The defence called no witnesses, insisting that Mr Arian should be judged on his actions, not his opinions. “After listening to months of testimony that got very detailed,” a juror named Todd admitted, “we just didn't think that the government made its case.”

Mr Arian's wife, his lawyer and various Arab-Americans all hailed the verdict as proof of the impartiality of American justice. Before the trial, many of Mr Arian's team had said it would be impossible for him to get a fair trial in Tampa, where there had been plenty of negative publicity about him. Victims of the PIJ's attacks had also been flown in from Israel to help the prosecution.

Conservatives rang into local talk-radio stations to denounce the result. But even if the other charges are dismissed, Mr Arian will hardly recover his pre-trial life. He was fired from USF after he was arrested, and will probably not get his job back, although it was tenured. Worse, it has emerged that he lied when he filled out his immigration papers and also that he voted in an election when he was not an American citizen. He can be deported for either of those things.

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Lexington

A heretical proposal

Dec 8th 2005
From The Economist print edition

The Democrats (and abortion rights) might be better off if *Roe v Wade* were overturned

AS A general rule, Republicans are much happier with American exceptionalism than Democrats. Conservatives celebrate the right of every God-fearing American to carry a semi-automatic in his Kyoto-busting SUV while liberals protest that Europe is greener and safer. But when it comes to abortion, it is the Democrats who are the American exceptionalists.

Most rich countries other than the United States have solved the abortion problem by consulting the electorate—either through the legislature or through referendums. This led to vigorous debates and, broadly, the triumph of abortion rights. Because abortion was legalised democratically, pro-lifers accepted the fact that they had lost and abortion became a settled right. By contrast, in America, abortion is a fundamental right of privacy protected by a 1973 Supreme Court judgment—*Roe v Wade*.

Few objective outsiders—if it is possible to be such a thing on abortion—would argue that relying on judges rather than popular will has helped American politics: no other comparable country has such destructive culture wars. *Roe* left a large chunk of the country feeling disenfranchised by the court; it also established a cycle of attack and counter-attack that has debased everything that it has touched, especially the judiciary.

A prime example is the *Roe*-obsessed confirmation process for Supreme Court nominees. Samuel Alito, Mr Bush's new candidate, claims that the fact that he once advised the Reagan administration on how to overturn *Roe* will have no bearing on his behaviour on the court. No less disingenuously, liberal senators pretend they are trying to gauge Mr Alito's legal philosophy when they are trying to catch him out on *Roe*.

All this is bad for America; but, in political terms, *Roe* has been particularly disastrous for the Democrats. The Republicans have generally had the better of the abortion wars (something most liberals admit as long as nobody from NARAL Pro-Choice America is in the room). *Roe* has proved a lightning-rod for conservatives; and many moderates dislike the Democrats'*Roe*-driven defence of partial-birth abortions. So consider a heretical proposition: why on earth don't Democrats disown *Roe*?

Merely to mention this in public can be dangerous. Yet there are two obvious reasons for the party to do it. First, abortion rights command broad popular support in the United States, just as they do in Europe. Gallup polling since the mid-1970s has consistently shown that about 80% of Americans want abortion to be legal—either in all circumstances (21-31%) or in some circumstances (51-61%). Without *Roe*, abortion might be slightly restricted, but certainly not banned, as conservatives want.

Second, *Roe* is a pretty flimsy decision. The idea that the constitution protects “the right to privacy” was already something of a stretch when Justice William Douglas discovered it in the *Griswold v Connecticut* case in 1965. Ruling that the state government could not stop married couples from purchasing contraception, Douglas wrote that the right to privacy exists because the “specific guarantees in the Bill of Rights have penumbras, formed by emanations from those guarantees that help give them life and substance.” It was these penumbras and emanations that were stretched still further in 1973 when the court ruled on *Roe*.

Some Democrats say that they regard “a woman's right to choose” as analogous to a black person's right to vote—a basic human right that cannot be gainsaid by the electorate. This is far from convincing. The constitution is as clear about the right to vote—thanks to the equal protection clause—as it is murky on the right to abortion. And abortion isn't a clear-cut moral issue in the way that the franchise is. Bill Clinton never felt any need to argue that black voting should be “safe, legal and rare”.

A better argument in defence of *Roe* is that some states might well outlaw abortion. The Centre for Reproductive Rights claimed in 2004 that 21 conservative states were highly likely to do so and nine somewhat likely. But this presumes that public opinion has been frozen in aspic since 1973. Laura Vanderkam of *USA Today* points out that many of these “anti-*Roe*” states may well vote in favour of abortion rights: seven have Democratic governors, one (Rhode Island) is firmly in the Democratic column, and many others (Colorado, Ohio) cannot be relied upon to ban it. Moreover, the states that are most likely to vote to ban abortion—such as Mississippi and North Dakota—already have very few abortion clinics in any case: women who want abortions in those states already have to travel huge distances. Crossing state lines would not make that much difference.

Stubborn as a mule

The main reason, alas, why Democrats will stick by *Roe* is simply because it is a totem in the culture wars. Why should pro-choice forces surrender any ground? That argument makes sense if you want to defend “choice” right into the ninth month, as some zealots do. But for most Democrats who merely want to keep abortion legal under most circumstances, that right would be more secure if it carried democratic legitimacy.

Embracing the democratic process would send a powerful signal that the Party of the People has rediscovered its faith in the people. Relying on judges to advance the liberal agenda allowed conservatives to seize the mantle of populism. *Roe* has given Republicans a free ride: they can claim to oppose abortion in the comfortable knowledge that it will never be banned. But imagine if *Roe* were overturned. How many Republicans would vote for a ban on abortion that only one in five Americans support? The conservative coalition would be split asunder.

History is full of great generals who won their wars by staging strategic retreats. Field-Marshal Kutusov allowed Napoleon to occupy Moscow, tempting him to over-extend himself. The Democrats might emulate that aged Russian's wiliness—and stage a strategic retreat to the high ground of popular opinion.

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Chile

The unexpected travails of the woman who would be president

Dec 8th 2005 | SANTIAGO
From The Economist print edition

AP

Michelle Bachelet long looked a shoo-in for Chile's presidential election. Now she seems certain to face a hard-fought run-off ballot

Get article background

“SHE'S lovely,” enthused a middle-aged woman as Michelle Bachelet, the presidential candidate of Chile's centre-left Concertación coalition, toured a street market in a lower-middle-class area of Santiago. Kissing babies, embracing a distressed young mother and joking with stall-holders, Ms Bachelet, a paediatrician, struck exactly the right note. She has long seemed to be cruising towards winning a fourth consecutive term for the Concertación, which has governed Chile with much success since the end of the military dictatorship of General Augusto Pinochet in 1990. She has much going for her. The economy is growing strongly. Ricardo Lagos, the outgoing president, is popular. The conservative opposition is divided.

As a woman in a socially conservative country, Ms Bachelet represents change as well as continuity. She would be only the third woman to be elected president in Latin America—and the first who was not the widow of a public figure. She has argued that her sex is an electoral advantage: Chileans “don't only want a society that is successful but also one that protects; a woman can achieve progress on both fronts,” she says. Polls showed that most voters were happy to choose a woman.

Yet in the last few weeks, the outcome of the election on December 11th has suddenly looked less predictable. Opinion polls—oddly scarce and fallible in Chile—suggest that support for Ms Bachelet is dropping. Sebastián Piñera, the more moderate of the two conservative candidates, has gained ground. A poll this week by CERC suggested that Ms Bachelet would get 46%, Mr Piñera 25% and

Joaquín Lavín, the other conservative, 21%. That would mean a run-off election on January 15th—and one that might be far from a walkover.

The campaign has not seen sharp policy disagreements. The three main candidates all promise economic stability, more jobs, greater equality of opportunity, better education, and more support for small and mid-sized businesses. All, too, promise better pensions.

Despite her campaigning skills, Ms Bachelet, a moderate socialist, has made mistakes. She performed nervously in all three television debates. She has yet to master the crisp soundbite. That halting performance may have caused some voters to have second thoughts about having a woman as president.

Her message has seemed curiously mixed. On the one hand, she is highly cautious: she claims pensions would be her priority, but instead of proposals for reform she promises only a commission to study the issue. On the other, she has sometimes spoken like an old-fashioned socialist. She has been oddly loth to associate herself with Mr Lagos's government. She invited Cristina Fernández, the fiery wife of Argentina's president, to her final campaign rally. That was unsettling for moderate voters, who mistrust the Argentine government's increasingly populist policies. In the event, the rally was cancelled after five of Ms Bachelet's campaign workers were killed in a road accident.

None of this would have mattered much had her only rival been Mr Lavín, the hardline conservative whom Mr Lagos defeated in 2000. Mr Lavín no longer has the appeal of being a fresh face. Mr Piñera's advent seemed at first merely to split the opposition vote. Now he seems to be attracting centrist Concertación voters. A far-left candidate, Tomás Hirsch, has also run an effective campaign, and could take up to 7% of the vote.

Ms Bachelet might have to make some nods to the left to win over Mr Hirsch's voters in the second round. That could give Mr Piñera—assuming he bests Mr Lavín—an opportunity. But Mr Piñera has a problem of his own: conflicts of interest. He is a successful businessman and one of Chile's richest men (worth perhaps $1.3 billion). He has a big stake in LAN, the national airline, which operates in Peru, Argentina and Ecuador too. He also owns a television channel. He has promised that, if elected, he would sell these assets. But his wealth—he is said to have paid for his campaign from his own pocket—has hampered him with poorer voters. In a run-off, some of Mr Lavín's supporters among the poor might switch to Ms Bachelet.

Much will depend, too, on the result of the congressional election also taking place on December 11th. The Concertación hopes to achieve a majority in both houses. If it does, that would help Ms Bachelet. Despite showing herself to be fallible, she still looks likely to be Chile's next president. But should her vote fall much below 45%, that loss of momentum could yet turn the run-off into a nail-bitingly close-run affair.

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Venezuela's parliamentary election

All power to chavismo

Dec 8th 2005 | CARACAS
From The Economist print edition

Edging towards a Potemkin democracy

Reuters

Where did all the voters go?

Get article background

EVER since he was first elected in 1998, Hugo Chávez, Venezuela's leftist president, has preached the virtues of “participatory” over merely representative democracy. “All power to the people” has become a favourite government slogan. But in an election for the National Assembly on December 4th, the masses chose not to participate. And because of a last-minute boycott of the election by most opposition parties, in protest at the government's control of the National Electoral Council (CNE), many Venezuelans will not be represented.

The opposition's boycott means that the new assembly will be composed wholly of supporters of Mr Chávez, albeit split among several parties. But the election was hardly an unmitigated triumph for the government. Only 25% of the electorate took part, admitted the CNE. The opposition says the real figure was under 20%. The CNE extended voting hours in some areas, as the government made frantic efforts to get out the vote.

The National Assembly was the only remaining government institution in which the opposition had any influence (it held 79 of the 165 seats before the election). The judiciary, the armed forces, the audit office—even the ombudsman—are controlled by Mr Chávez's supporters. Their clean sweep in the assembly removes the last remaining check on the president. All this gives Mr Chávez the power to change the constitution at will.

The opposition looks rash to have yielded its place in the assembly by default. Officials complain that the opposition has spent years trying to overthrow the president—by a coup and a general strike—rather than oppose him by political means. Certainly, the opposition lacks the leadership, strategy and programme to pose an effective alternative to Mr Chávez.

But its decision to pull out of the poll was driven by its voters, who were intent on staying at home

anyway. “Broad sectors of Venezuelan society have no confidence in the electoral process, nor in the independence of the electoral authority,” said election observers from the European Union. They called on the assembly to appoint a new CNE “composed of professionals with prestige and independence”.

So what now? Alí Rodríguez, the foreign minister, invited the opposition to a dialogue. But the minister, a former guerrilla who took part in a 1992 coup plot by Mr Chávez, said they must remember that in a democracy “decisions are taken by the majority, not the minority”. Officials point out that turnouts have been low in parliamentary elections in Venezuela for two decades. Even so, the government can hardly claim a mandate for intensifying Mr Chávez's socialist revolution.

The assembly vote was a dress rehearsal for a presidential contest in a year's time, in which Mr Chávez will seek a further six-year term. Absent a new and impartial electoral authority, the opposition's supporters may conclude that the electoral road to power is closed to them. Some of the opposition parties may disappear in any event. Mr Chávez says that they will be illegal unless they re-register.

With the legislature reduced to a rubber stamp, the risk is that political conflict will move to the streets. The government has changed the penal code to restrict demonstrations. Hitherto, most Latin American and European governments have distanced themselves from the strident denunciations of Mr Chávez emanating from Washington DC, on the ground that he has twice been elected.

Venezuela remains a surprisingly open society. Polls show strong support for democracy. But the essence of democracy, as Joseph Schumpeter wrote more than 60 years ago, is an “institutional arrangement for arriving at political decisions in which individuals acquire the power to decide by means of a competitive struggle for the people's vote.” Unless Mr Chávez accepts that next year's contest must be impartially conducted, outsiders may conclude that Venezuela is no longer a democracy in any meaningful sense of the word.

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Mercosur and Venezuela

An ominous step

Dec 8th 2005 | SÃO PAULO
From The Economist print edition

A trade group becomes an energy club

"OUR destiny is Mercosur," declared Hugo Chávez, last month. It may be unwise to hold Venezuela's president to everything he says in his weekly four-hour television show, but in this case Mr Chávez seems to mean it. At a presidential meeting taking place on December 8th and 9th in Montevideo, the countries that make up South America's putative common market—Brazil, Argentina, Uruguay and Paraguay—were expected to welcome oil-rich Venezuela as a fifth full member, though it will take months if not years for declaration to become reality.

The admission of Mr Chávez's Venezuela is a challenge to Mercosur's identity. When it was founded, in 1991, Mercosur claimed to stand for open trade and regional integration led by the private sector; in 1996 it committed itself to "the full respect of democratic institutions". Mr Chávez is a fan of none of these principles.

"Theoretically, it makes sense to have a Latin American oil emirate inside Mercosur," says Alfredo Valladão of Sciences Po, a French university. Some of Venezuela's oil windfall is already flowing to southern neighbours. Venezuela could become the hub of a regional energy network. Petróleos de

Venezuela, the state energy company, has teamed up with its Brazilian counterpart to build a $2.5 billion refinery in Brazil's north-east. Venezuelan shipments of diesel eased Argentina's energy crunch last year. Now the two countries are mulling over a pipeline network to deliver Venezuelan gas to Argentina.

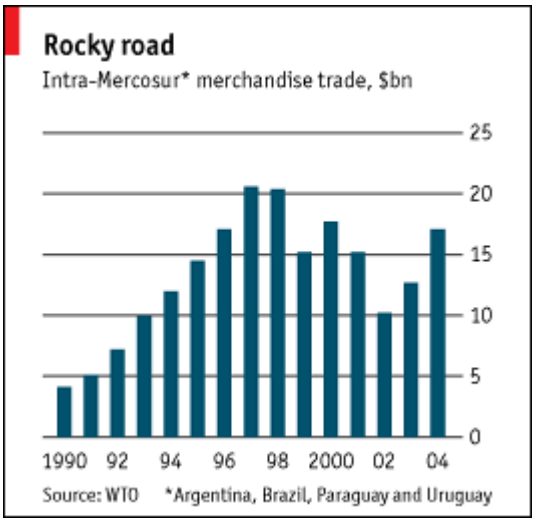
All this could continue without Venezuela's full entry into Mercosur. Already Mercosur has agreed to free its trade with the five-nation Andean Community, to which Venezuela belongs. But tariffs are to fall slowly, with many exempt items. Full membership would speed up Venezuela's integration with Mercosur, argues José Francisco Marcondes of the Brazil-Venezuela Chamber of Commerce. Venezuela would participate in the borderless trade within the group and would accept its common external tariff.

At what price? Mr Chávez's interest in Mercosur is geopolitical. Venezuela's private sector has not been consulted. Already suffering price and credit controls and other harassments, Venezuelan businesses fear a flood of Brazilian imports.

Venezuela's arrival will rattle the balance of power within Mercosur and could complicate its relations with the world. Mr Chávez, whose oil does not attract any tariffs, is furiously opposed to any trade agreements with the United States, to which Brazil and Argentina are anyway lukewarm. The European Union already finds talking to Mercosur difficult.

Inside Mercosur, Venezuela may strengthen Argentina in its perennial rivalry with Brazil. Néstor Kirchner, Argentina's president, has the greater need for energy imports; his populist leftism chimes more closely with Mr Chávez's politics than the pragmatic moderation of Brazil's Luiz Inácio Lula da Silva.

The biggest potential cost is that Mr Chávez's constant grandstanding could distract Mercosur from the work needed to become the rules-based common market it aspires to be, but which is still a mirage. Trade within the group is recovering from years of recession (see chart), but in a lopsided way. Argentina's imports from its neighbours have surged, while Brazil's have fallen. That is odd, since Mr Kirchner has kept the peso weak, while the *real* trades close to its highest level since April 2001. Rather than try to make the economy more competitive, Argentina's government is insisting on a provision for safeguards against spikes in imports. Safeguards are “a second-best solution” compared with common policies on trade-distorting practices, such as export incentives, says Beatriz Nofal, a consultant in Buenos Aires.



Mr Chávez, like Mr Kirchner, has never been a man to stick to rules when they constrain him. Venezuela's entry, assuming it goes ahead, puts a question-mark over Mercosur's newly established dispute-resolution tribunal, as well as its plans for closer macro-economic co-ordination.

Supporters of Venezuela's entry claim that Mercosur's “democratic clause” will provide leverage over Mr Chávez. Perhaps. The risk is that by admitting a regime whose president is ambivalent towards democracy, Mercosur devalues one of its biggest assets, says Mr Valladão. A decade ago, there were high hopes that Mercosur marked a new seriousness in Latin American integration. Now the challenge is to avoid the welter of grandiloquence and rule-bending that undermined so many previous schemes.

Canada

Let them eat yellow margarine

Dec 8th 2005 | OTTAWA
From The Economist print edition

The battle to kill off an antiquated protectionist law

WAL-MART has had its troubles in Quebec. Its decision to close one of its stores in the province just as workers there were negotiating their first union contract attracted much criticism. It is often visited by language inspectors checking its store signs for conformity with Quebec's strict laws on the use and abuse of French. Now it is under attack by a small, but highly powerful lobby: Canada's dairy farmers.

The trouble started last month, when a provincial politician accused Wal-Mart of conspiring with Unilever, an Anglo-Dutch consumer-products giant, to sell contraband yellow margarine. Quebec, home to half of Canada's 17,000 dairy farms, is the only province that still requires margarine to be left an unappetising white so it cannot be confused with butter. Such laws, once common, have been abandoned almost everywhere else in the world.

The next day the margarine police—plainclothes inspectors from the agriculture ministry—swooped on Wal-Mart. The firm said the shipment had been mixed up by mistake with one for another province.

The incident underlines the dairy lobby's heft. It is pushing for a stiff labelling law under which a product could only claim dairy attributes—buttery taste, creamy consistency, cheesy flavour—if it contains those products. It secured a resolution in Canada's parliament instructing the country's negotiators in world-trade talks not to accept changes to a price-support scheme.

Those who have taken on the dairy farmers have usually lost. Unilever mounted a legal challenge to the Quebec margarine law, saying it cost the company C$1.2m ($1m) a year to mix a separate batch of margarine for the province. Canada's Supreme Court ruled that the province has the right to make such laws. It helps the farmers that they are clustered in Quebec, a key political battleground with almost a quarter of the seats in the federal parliament.

Even so, the dairy farmers face two big challenges. One comes from outside Canada. Should the world-trade talks ever get close to a deal, the government would be unlikely to resist pressure to reduce its dairy protection. The other comes from western Canada, home to the farmers who grow the oilseeds that go into margarine. Last summer, a trade tribunal backed a complaint by Alberta's government that the margarine law amounted to an unfair restraint of trade. Quebec was supposed to comply with the ruling by September 1st. Since it has not, Alberta is now contemplating retaliation. “The suggestion I'm going to make is that western Canada says no to yellow butter from Quebec,” said Sean McPhee, of the vegetable oils trade association.

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China and Hong Kong

Many people, few votes

Dec 8th 2005 | HONG KONG
From The Economist print edition

The Special Administrative Region requests democracy

Reuters

Get article background

IF CHINESE leaders had been in any doubt about Hong Kong's hopes for democracy, a protest march by tens of thousands of the territory's citizens on December 4th will have set them right. The huge demonstration was also a deep embarrassment for the territory's new chief executive, Donald Tsang, who has tried to cajole Hong Kong's democrats into accepting only vague assurances that fully democratic elections will one day be held. But despite the demands, neither Mr Tsang nor the Chinese government is likely to make big concessions.

The protesters marched peacefully through central Hong Kong to the government's headquarters. Although the turnout was smaller than that for Hong Kong's two biggest political demonstrations in recent years, on July 1st 2003 and July 1st 2004, it was larger than organisers had predicted—possibly more than 100,000 (though the organisers claimed 250,000). In an unprecedented gesture by a top establishment figure, a former head of the civil service, Anson Chan, once Mr Tsang's boss, briefly marched with them.

Unlike the other large protests since 2003, which were fuelled partly by grievances over the economy and dislike of Mr Tsang's predecessor, Tung Chee-hwa, this latest demonstration appeared more focused on demands for political reform. It was aimed at pressing for a timetable for the introduction of fully democratic elections for the post of chief executive and for the territory's quasi-parliament, the Legislative Council. At present the chief executive is chosen by an 800-strong election committee whose members are largely sympathetic to China's views. Only half of the 60 legislators are chosen by direct elections. A majority almost invariably sides with the

government.

But the votes of the 25 pro-democracy legislators will be critical on December 21st, when the council is due to vote on a package of limited political reforms proposed by the government. Any change in electoral procedure requires approval by at least two-thirds of the council's members. The pro-democracy camp has threatened to vote against the measures unless a timetable is announced for the introduction of universal suffrage. China announced in April last year that universal suffrage would not be allowed for the next chief executive elections (due in 2007) and the next Legislative Council polls in 2008. But Hong Kong's post-colonial constitution, promulgated by China, speaks of universal suffrage as an ultimate goal.

In a televised appeal last week, Mr Tsang gave warning that failure to adopt his proposals would mean progress toward reform in 2007 and 2008 would “come to a halt” (this awkwardly delivered intervention annoyed many and apparently helped boost support for the march). But the turnout on December 4th has strengthened the democratic camp's determination to push for a clear timetable.

China's leaders should now be clearer what Hong Kong wants, but also of the limits to which it is prepared to go to get it

Mr Tsang said after the protest that he would see what he could do to “perfect” the package, but he had “little scope” to change it. It is widely believed that the government might agree to limit the role of government-appointed members of district councils (bodies that help supervise public services) in choosing members of the election committee and the legislature, which is to be given an extra ten seats, only half of them directly elected.

Hong Kong's *South China Morning Post*, the territory's biggest English-language newspaper, has reported that China is considering an attempt to win over the democrats by hinting at the possibility of full democracy by 2017. But China is highly unlikely to make any firm commitment.

If the package is voted down, Mr Tsang is unlikely to find himself threatened by the same political turbulence that ensued from the demonstration on July 1st 2003. The scale of that protest was much more of a shock to Chinese and Hong Kong leaders than was the turnout on Sunday. This latest protest could even be seen as a tacit acceptance by democrats of China's refusal to allow universal suffrage in 2007 and 2008. Not long ago they were demanding fully democratic elections at the next opportunity. Now they are simply pushing for a timetable.

But Mr Tsang will remain deeply uneasy. Mrs Chan's participation in the demonstration has fuelled speculation that she might run against him in 2007. Mrs Chan is hugely popular. She says she does not have political ambitions, “at least at this stage”, and that she is “not out to make things difficult” for the Hong Kong or Chinese governments. But she does not explicitly rule out a bid for chief executive.

From local elections held in Taiwan on the day before the Hong Kong demonstration, China might conclude that democracy can sometimes work in its favour. The ruling Democratic Progressive Party (DPP), which China despises because it shuns reunification between the island and China, suffered a heavy defeat. The DPP won only six out of the 23 mayoral and county magistrate posts contested. Parties more sympathetic to China won the rest.

Meanwhile, comfortingly for China, as well as for Mr Tsang, there appears to be little appetite in Hong Kong for sustained, let alone violent, protests that could threaten the territory's recent recovery from its prolonged economic malaise. China's leaders should now be clearer what Hong Kong wants, but also of the limits to which it is prepared to go to get it.

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Japan

Earth-shaking news

Dec 8th 2005 | TOKYO
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Corner-cutting in the construction industry, with murderous implications

AN ARCHITECT'S admission last month that he falsified data relating to the strength of buildings he designed in order to cut costs has appalled a country, hitherto proud of its building standards, that is more vulnerable to big earthquakes than any other. So far, the government has declared that about 60 out of over 200 hotels and condominium complexes designed by Hidetsugu Aneha over the past few years were built using faked earthquake-resistance data; and the number keeps rising. Since these buildings, many of which have insufficient steel reinforcement in their support pillars, are at risk of collapsing in even a moderate earthquake, the government has ordered them pulled down and rebuilt. Residents have until mid-December to clear out.

Mr Aneha faces criminal charges, while the president of an architectural firm that had taken him on as a sub-contractor was found dead, an apparent suicide. On December 6th, the infrastructure ministry announced ¥8 billion ($66m) of measures designed to help Mr Aneha's victims. Temporary public housing will be free to residents, and there will be tax breaks on existing mortgages. Local governments may even buy condemned condominiums. Still, despite these measures, home-owners will be heavily out of pocket: neither Mr Aneha, nor the private inspection companies supposed to scrutinise his work, nor the developers themselves have much in the way of indemnity insurance against claims. People are getting angry, and are increasingly willing to blame the government as much as Mr Aneha and his cronies.

“I would like to think”, says Motoo Hayashi, who chairs the House of Representatives' land, infrastructure and transport committee, “that this is a special case. But too many people are now worried about their own apartments, even if they were not designed by Aneha. So now, we have greatly to step up general inspections.” Such inspections, notoriously hard to carry out once a building is up and finished, may actually increase the alarm. For the problem, says Takayoshi Igarashi, a lawyer and professor of urban policy at Hosei University in Tokyo, is systemic.

In other countries, building inspection is carried out either by well-staffed public agencies (America) or by certified private inspectors with mandatory indemnity insurance (France). In 1998, under pressure to deregulate the building industry, Japan's government chose a fudge.

While public inspectors remained, private certifying firms were also allowed to sign off on the soundness of new buildings—and under the new system, the architect could pick the certifier he wanted to inspect his plans. Some 120 private firms now exist, carrying out inspections on three-fifths of the 1m new buildings put up in Japan each year. At least two of these firms have been tarnished by the scandal.

Yet, says Mr Igarashi, the desire in the building industry to cut costs means that complicity among architects, builders and certifiers is certain to run deeper. Add to that an overwhelmed public-inspection system. Building agencies have just 1,600 officials around the country, and this week the infrastructure minister admitted the public sector deserves some blame for letting things pass under its nose. In all, says Mr Igarashi, it is plausible to think that tens of thousands of buildings

might have to be condemned. That prospect has grim implications for the tentative housing recovery that was starting to spread out across the country from Tokyo. Parliament reconvenes in January, and the scandal has become the chief political headache for the ruling Liberal Democratic Party.

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Indonesia

Bringing back Boediono

Dec 8th 2005 | JAKARTA
From The Economist print edition

Indonesia's president chops away some dead wood, but not enough

Yudhoyono's report card

Economic challenge	Why important	Action taken	Marks Overall impression	out of 10
Oil subsidies	Key to macro stability	Prices raised twice this year	Relatively decisive	7
Cepu case and others	Test cases for foreign investment	Negotiations ongoing	Painfully inept	1
Aceh/tsunami relief	Livelihood of millions	Signed peace deal, accepted foreign help	Losing sense of urgency?	7
Corruption	Big drain on economy	Provincial government, election commissioner on trial	Slow but promising	5

Source: *The Economist*

FIRING three ministers and shuffling another three might not always be a sign of a seismic policy shift. But when Susilo Bambang Yudhoyono did so on December 5th, it marked a significant break with the first 13 months of his presidency.

The former general stressed that the new line-up was his choice and no one else's. In other words, Mr Yudhoyono has finally asserted himself over his powerful vice-president, Jusuf Kalla. Mr Yudhoyono shifted Mr Kalla's protégé, Aburizal Bakrie, from senior or "co-ordinating" economics minister to senior welfare minister. Mr Bakrie had been a curious choice to manage the economy, given his history as a favoured businessman under Suharto, Indonesia's disgraced former strongman, and as a big defaulter during the economic crisis of 1998. His appointment had been seen as a sop to his party, Golkar, the largest in parliament, which Mr Kalla heads. So his demotion will inevitably be viewed as a break with Mr Kalla, although Mr Yudhoyono did try to compensate Golkar with an extra slot in the cabinet.

The new economics team looks much more promising. Mr Bakrie's replacement, Boediono, is no stranger to government, having served as finance minister from 2001 until 2004. While in office, his extreme fiscal prudence and technocratic impartiality won him a glowing international and domestic reputation. The impressive Sri Mulyani Indrawati, who in the past year has transformed the state planning agency into an institution of unaccustomed influence, will take over the finance ministry from the underwhelming Yusuf Anwar. The most prominent casualty was the welfare minister, Alwi Shihab.

The stockmarket reacted well to the new economic team, while the rupiah continued its recent climb. But problems lie ahead. The central bank, which is independent, has raised interest rates to their highest level in three years, to stem inflation and steady the rupiah. The recent jump in inflation, to just under 19%, is the result of the government's decision to raise the price of subsidised fuel dramatically in October. Higher interest rates and prices may dent the economy, which grew by a relatively sprightly 5.3% in the third quarter.

Foreign investment has fallen short of expectations, in part because of such concerns. But the outgoing economic team made matters worse by failing to resolve various disputes with investors, including a row with ExxonMobil over the possible extension of its contract to operate a big oil field called Cepu. ExxonMobil and Pertamina, Indonesia's state oil firm, are equal shareholders in the scheme. But ExxonMobil wants to be sole operator, while Pertamina wants the two firms to take turns in charge. Mr Yudhoyono pledged to solve the dispute during his first 100 days in office, but it is still festering, 13 months later.

The government's campaign against corruption is also flagging. Hamid Awaluddin, the justice minister, kept his job in the reshuffle, despite swirling allegations of corruption. So far, the campaign has claimed no bigger fry than a provincial governor and an election commissioner. A more thorough clean-out of the cabinet, observers speculated, might have looked too much like an admission of failure.

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Bangladesh

On the edge of the knife

Dec 8th 2005 | DHAKA
From The Economist print edition

Waking up to Islamist dangers

Get article background

ATTENTION in Bangladesh has, at least temporarily, shifted from economic development to nothing less than the future of its democracy. On December 8th, a bomb killed at least seven people in the northern town of Netrokona. Last week, the first-ever suicide bombings in the country left at least 12 dead and dozens injured in attacks on courthouses in Gazipur, a town 30km (20 miles) north of the capital Dhaka, and Chittagong, the second city. The attacks were the latest indication that in the past four years, under the rule of the Bangladesh Nationalist Party (BNP) and its allied Muslim parties, a militant network has been established.

The attacks, thought to be the work of Jamiat-ul-Mujahideen Bangladesh (JMB), a banned Islamist group, mark a change in strategy in the campaign of violence that has left more than 20 people dead since mid-August. Unlike the highly co-ordinated terrorist onslaught on August 17th, in which some 500 tiny bombs were detonated within the space of about an hour in 63 of Bangladesh's 64 districts, the recent attacks were designed to inflict the maximum possible casualties. This week, JMB issued death threats to judges, lawyers, officials and journalists.

The BNP-led government, which until earlier this year had denied the existence of Islamist militants in the country, has stepped up security. The cabinet on December 5th extended the government's right to tap phones; Bangladesh's controversial paramilitary force, the Rapid Action Battalion, has been beefed up; and the government is considering an emergency law to deploy the armed forces. The police are openly saying that they are hunting a 2,000-strong “suicide squad” drawn from members of JMB and two other banned groups. A few hundred people, including the suspected mastermind of last week's twin suicide bombings, have been arrested.

The likelihood must be that Bangladesh's secular roots will hold, but after years of denial of the existence of a threat to its tolerant and liberal tradition, the danger is unlikely to fade quickly. And the BNP may suffer. Its alliance with two Islamic parties, Jamaat-e-Islami and Islami Oikya Jote, is thought to have encouraged it to turn a blind eye to Islamic extremism. That could cost it the general election due by January 2007.

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Economist.com WORLD ASIA

The Philippines

Bitter-sweet

Dec 8th 2005 | HACIENDA LUISITA
From The Economist print edition

The politics of sugar and land

Reuters

The 20¢ week

IN THE next few days, for the first time in over a year, workers will enter the mill at the centre of Hacienda Luisita, one of the Philippines' biggest sugar plantations. As they do, they will pass a memorial to seven of their colleagues, killed last year during an attempt by the army and police to disperse the picket line that blocked its gates. The workers are returning to the fields of the 6,000-hectare (14,800-acre) property, to cut the cane that stretches in long rows toward the horizon of dark volcanoes. An agreement to reinstate sacked workers and pay back-wages ended the strike, which had pitted the plantation's 6,000-odd employees against its owners, the family of a former president, Corazon Aquino. But the questions raised by the dispute—about the conduct of the army, the impartiality of the bureaucracy and, above all, about the effectiveness of land reform—remain unanswered.

Since independence, successive governments have attempted to break up big agricultural estates dating back to Spanish colonial times. But the landed elite still dominate Philippine politics, and so have managed to water down or subvert most such schemes. In 1957, Jose Cojuangco, Mrs Aquino's father, promised the various government agencies that lent him money to buy Hacienda Luisita, in Tarlac, 60 miles (100km) north of Manila, that he would sell on much of the land to the peasants who worked it. He never did so. The *hacienda* was also excluded from the redistribution drive of Ferdinand Marcos, a former strongman, because its main crop was sugarcane rather than corn or rice.

In 1988, at Mrs Aquino's urging, Congress passed the Comprehensive Agrarian Reform Programme (known as CARP), which limited individual landowners to seven hectares of farmland. But it included lots of loopholes. Some landlords, in collusion with local officials, pretended to sell land voluntarily to farmers, while actually distributing it to their relatives and friends. Others got their property reclassified as industrial land, and so exempt from agrarian reform. The management of Hacienda Luisita, making use of another provision in the law, persuaded its workers to waive their right to land in exchange for a one-third stake in the company.

In theory, this arrangement was designed to improve the farmers' lot, without dividing the plantation into impractically small plots. But union leaders complain that the farmers have seen little benefit. Most are only entitled to work one day a week, for which they receive about 200 pesos ($4). After various deductions (including some useful items such as cheap sugar), their take-home pay can be as little as 9.5 pesos a week. The company has not turned a profit in five years, so the workers have received no dividends, although they do get 3% of the revenue from the mill.

Until recently, complaints to the government about all this fell on deaf ears. Last year, the Department of Labour refused the *hacienda*'s two unions permission to go on strike. It was during the ensuing protest that the seven workers were killed, while seven other activists have been assassinated since. The workers say the army is behind the killings, as part of an effort to intimidate them.

The army, in turn, says the killings are the work of communist guerrillas out to discredit it. Indeed, it claims that Luisita is a dangerous hotbed of militancy, and has stationed troops in all ten of its villages. But a spokesman admits that soldiers have never actually come under attack in the *hacienda*, nor discovered any weapons.

Thankfully, most land redistribution in the Philippines is not as contentious. Since 1988, when CARP became law, the state has handed out some 3.5m hectares—roughly a tenth of the country's arable land. Nasser Pangandaman, the secretary for agrarian reform, says it will have redistributed 4.3m hectares by the time the law expires, in 2008.

But that is much less than the 10m hectares originally envisaged. Moreover, most of the land distributed so far belonged to the state in the first place. Getting private owners to part with their land has proved harder. The cash-strapped government is having trouble funding purchases, while landlords can easily stall the process with protracted legal challenges.

Indeed, Hacienda Luisita itself is likely to be the subject of further legal wrangling. In September, the Department of Agrarian Reform recommended that the employees' share-ownership scheme be called off and the land distributed to them instead. The recommendation came after Mrs Aquino called for the resignation of the president, Gloria Macapagal Arroyo, over claims that she had rigged last year's election. Officials say the timing is coincidental, and is not intended to pressure Mrs Aquino to tone down her criticism. But the fate of Hacienda Luisita does now rest with Mrs Arroyo, who must confirm the department's decision.

If the president decides to break up the *hacienda*, the management will challenge the decision in court, says Vigor Mendoza, a lawyer and spokesman for the firm. But the workers might not shed too many tears. During the strike, they uprooted some of the sugarcane and planted yams, peanuts and assorted vegetables in its stead. “We're better off with these,” said one union leader, raising a spoonful of beans, “than with 9.5 pesos a week.”

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Kazakhstan

Seven more years (at least)

Dec 8th 2005 | ALMATY
From The Economist print edition

President Nazarbaev wins again

Reuters

Surprise, surprise

Get article background

TO NO one's great surprise, Nursultan Nazarbaev, who has been at Kazakhstan's helm since Soviet times, was re-elected for another seven-year presidential term on December 4th. According to preliminary results, he received more than 91% of the votes, while his main challenger, Zharmakhan Tuyakbai, came a distant second with only 6.6%.

While it had been predicted that Mr Nazarbaev, 65, would win by a goodly majority, the scale of his victory took many by surprise. Less astonishing was the verdict of the Organisation for Security and Co-operation in Europe, which found the elections to be flawed. The OSCE has never judged any elections in Kazakhstan to be free or fair.

Even so, Mr Nazarbaev is genuinely popular. Although there is dissatisfaction with the authoritarian leader and his family, who are believed to have amassed significant wealth over the years and who hold key positions in politics and in business, he has a proven track record of economic reforms that have helped create a real middle class. On his watch, oil-rich Kazakhstan managed to get out of its deep economic crisis following the breakup of the Soviet Union in 1991 and has seen annual growth rates of around 10% over the last few years. High oil prices have, of course, been a contributing factor.

The election showed that few people were willing to risk their material gains, even for the sake of greater democracy, freedom of the press and a crackdown on widespread corruption, which were all promised by Mr Tuyakbai, the candidate of the opposition block, For a Just Kazakhstan. One look across Kazakhstan's southerly border with Kirgizstan, where the political situation has remained volatile after the removal of President Askar Akaev in the “tulip” revolution in March, was apparently enough to convince Kazakhstan's voters that stability is preferable to experiments with democracy. The shooting of hundreds of demonstrators in neighbouring Uzbekistan in May may have also made many people thankful for having a strong yet benign leader, at least compared to his brutal Uzbek counterpart.

With re-election so comfortably assured, Mr Nazarbaev can now embark on his long-planned political reforms, which he has always said should come after economic reforms. Or will he? His eldest daughter, Dariga, has already announced that she is not ruling out running for the top job in 2012.

Iraq's election

Who will run the show next?

Dec 8th 2005
From The Economist print edition

AFP

The West and most neighbouring Arab countries want secular-minded parties to do better, but the Islamists, egged on by Iran, will probably triumph again

Get article background

THE tension is mounting in the run-up to Iraq's general election on December 15th. The killing, mostly of Iraqis by Iraqis, has not abated. Earlier this week, at least 36 police cadets were killed by two suicide-bombers, probably fellow cadets, in Baghdad's police academy—one of the bloodiest such deeds for several weeks. Last week ten American marines were killed by a roadside bomb, the highest one-day toll of Americans in four months. But hopes are still high, among those seeking to build a federal and democratic Iraq, that the election will produce a parliament and government even more representative and legitimate than those that emerged after the poll in January, when the rest of the world was so struck by the size of the turnout and by Iraqis' determination to choose their own leaders.

The antagonism between some of the leading candidates, aside from the spectacle of insurgents and government forces killing each other, has sharpened. Last week a former prime minister, Iyad Allawi, a secular-minded Shia Arab whose candidates' list is the most prominent rival to the dominant and strongly Islamist force in the outgoing parliament, the United Iraqi Alliance (UIA), was attacked by a crowd of Shia radicals on a campaign visit to the holy city of Najaf. “God curse Baathists!”, they shouted, referring to his past membership of Saddam Hussein's party, as they pelted him with stones and shoes. A furious Mr Allawi said he had been subjected to an “assassination attempt”, and promised to “cleanse the country” of such “hurtful rebels” once he took power.

The bitter conflict between Mr Allawi and the UIA is yet another fissure in Iraq's already divided body politic. The Shia-led coalition, widely known as “the clerics' list”, that swept the board in January's poll, with 48% of votes cast, has shed many of its secular-leaning members. It is now a straightforward alliance of Shia Islamists, including the radical movement whose members follow Muqtada al-Sadr, a firebrand cleric, and were probably responsible for the Najaf attack. The UIA's leaders promise to intensify the counter-insurgency against Sunni Arab fighters, and show little sympathy for former military officers or Baath party members who say they have been unfairly treated.

Thanks to a new electoral system and the widespread political mobilisation of Sunni Arabs, the UIA's share of the vote will probably go down. In January, parties competed on a single national list; since most Sunni Arabs boycotted the ballot, they ended up with scant representation. This time, each province, including the four mainly Sunni Arab ones (out of 18 in all), will have its own list, so Sunnis will be far better represented, however few of them turn out. Nonetheless, the UIA will do well, because the Shias' most influential clergyman, Grand Ayatollah Ali al-Sistani, has implicitly blessed it, after some hesitation due to his reluctance to immerse himself in partisan politics. He told his followers to vote only for a list that backs “religious and national principles”.

Mr Allawi's slogan, “Iraq for all Iraqis”, is a dig at the Alliance's perceived Shia sectarian bias. He has enlisted Sunni allies such as the current parliament's speaker, Hachem al-Hassani, and a former president, Ghazi al-Yawer, and has courted Sunni votes by damning the present government's human-rights record as comparable to Saddam Hussein's. In January, Mr Allawi got 14% of the vote, and hopes to improve on that. He has drawn some support from Shia secularists, military families and others opposed to the UIA's clerical links and its ties to Iran. He also hopes to pick up more support from the many Iraqis dissatisfied with the government's failure to improve security or boost the economy; electricity in most towns still works only for a few hours at a time.

But Mr Allawi no longer has the advantage of incumbency, which he used in January to promote himself as a strong leader who could put Iraq together again. Moreover, the UIA blamed much of Iraq's economic failures on corruption in Mr Allawi's cabinet. In addition, though many Shias dislike their present rulers, they dislike even more the idea of letting anyone connected with their former Baathist oppressors regain a foothold in the state. Sadrist newspapers describe Mr Allawi as “Saddam without the moustache”. Some Shia media outlets say that the CIA and Sunni Arab countries are trying to engineer an Allawi victory and that the Americans, having toppled the old Sunni Baathist regime, are trying to impose a new Baathist one—with a Shia veneer.

Who's who?

Party/list*	Main components	Leading personalities	Platform
United Iraqi Alliance	Supreme Council for Islamic Revolution in Iraq	Abdelaziz al-Hakim, Adel Abd al-Mahdi and Hussein al-Shahristani†	*The Shia block that swept January's elections, with 48% of votes cast, minus some secularists such as Ahmed Chalabi (see below). This time it has a more Islamist make-up. Grand Ayatollah Ali al-Sistani, the country's most influential cleric, has implicitly endorsed it, so it will probably again do very well. The Sadrists have sought to open lines to Sunni insurgents*
	The Dawa Party	Ibrahim al-Jaafari	
	Sadrists	Muqtada al-Sadr‡	
	The Virtue party§	–	
Kurdistan Alliance	Patriotic Union of Kurdistan	Jalal Talabani	*The same Kurdish coalition, plus or minus several smaller parties, that took the second-largest share (26%) of the vote in January*
	Kurdish Democratic Party	Massoud Barzani	
Iraqi National List	Iraqi National Accord	Iyad Allawi, Ghazi al-Yawer, Hachem al-Hassani and Adnan Pachachi	*Built around the personality of secular-minded former prime minister, Iyad Allawi, a Shia who promises strong leadership and "Iraq for all the Iraqis", a dig at the UIA's supposed sectarianism. He has gained some new Sunni allies, such as his three leading colleagues. It won 14% of the vote in January*
	Iraqi Communist Party	–	
	13 other groups	–	
Iraqi National Congress	Iraqi National Congress	Ahmed Chalabi	*Coalition billing itself as a liberal, non-Islamist alternative to the UIA*
	Constitutional monarchists	Sharif Ali bin al-Hussein	
Iraqi Consensus Front	Iraqi Islamic Party	Adnan al-Dulaimi, Tareq al-Hashimi and Khalaf al-Alyani	*The more Islamist of two predominantly Sunni Arab coalitions; calls for all foreign troops to leave and for deBaathification and the dissolution of the army to be reversed. Wants to change the new constitution*
	Two other predominantly Sunni Arab groups	–	
Iraqi Front for National Dialogue	Iraqi National Front	Saleh al-Mutlek	*A more secular, nationalist, Sunni-led grouping that opposes the supposed sectarianism of the Shia Islamist block*
	Arab Democratic Front	–	
	Three other groups	–	
Kurdistan Islamic Union	–	Salaheddin Muhammad Bahaeddin	*Kurdish Islamist group that criticises the two larger parties' dominance of Kurdish politics*
Future of Iraq Grouping	–	Ibrahim Bahr al-Ulum	*Breakaway from the UIA*
Independent Grouping of Iraq's Technocrats	–	Ali al-Dabbagh	*Breakaway from the UIA*
Iraq National Peace List	–	Laith Kubba	*Breakaway from the UIA*
National Two Rivers	Five predominantly Christian groups	Yunadim Kanna	*Promotion and protection of Christian interests*
National Reconciliation and Liberation Block	–	Mishan al-Juburi	*Sunni Arab-led party which won a seat in the last elections; opposes the constitution in its current form*
National Forces Parliament	–	Hazem al-Shaalan	*Strongly anti-Islamist list led by ex-defence minister, a Shia, who has been accused of corruption*

Source: *The Economist* *More than 200 parties and groups have registered †Shahristani is a non-party MP close to Sistani ‡He is not a candidate himself §Followers of Muqtada al-Sadr's late father

Many Sunnis, particularly those outside Baghdad, may opt for new coalitions of their own co-religionists that have formed in the last few months, such as the Islamist-leaning Iraqi Consensus Front or the more secular-nationalist Iraqi Front for National Dialogue. Their leaders champion causes dear to the Sunnis, such as reversing deBaathification, reinstating those who served in the old army, freeing prisoners and removing American and foreign troops. But though some of the Sunni fronts include well-known figures, none has acquired the sort of voice that the UIA gives the Shias or the Kurdish coalition gives the Kurds. So many Sunnis may vote for local tribal or religious candidates.

But will they vote at all? Many radical Sunni insurgents still oppose holding elections, though there have been few reports of explicit threats against would-be voters. The influential Muslim Scholars' Board, a group of Sunni clergy which led the boycott in January, still in principle opposes an election under foreign occupation. But most Sunni politicians have learnt the cost of not taking

part in the political process. They particularly want to regain a foothold in the security ministries, which they think have become instruments of Shia oppression of their communities.

The Kurds, who make up about a fifth of Iraq's people, alongside the Shia Arabs (60%) and the Sunni Arabs (20%), are likely to vote for a coalition of the two parties who monopolise power in Iraq's three northern provinces. Despite discontent, especially among young Kurds, over the cronyism of this ruling duo, it should win easily; tribal networks in the villages help ensure its dominance. Reports from the northern province of Dohuk that an Islamist office has been attacked by a mob and four campaigners killed suggest that the election there may turn nasty.

Some American and western officials in Baghdad hope that Mr Allawi can stage a comeback, even with a modest share of the vote, since many Sunni politicians say that they would back him as prime minister. In any event, western leaders hope for a broad-based government, including some prominent Sunnis, in the hope of pulling the more secular-minded insurgents into peaceful politics. However, the UIA's power base is so wide, and its sense of entitlement as the Shia majority's main voice so strong, that it will be loth to endorse a prime minister from outside its ranks. The Alliance is particularly hostile to Mr Allawi.

But the Shia Islamists are themselves divided at the top. The Supreme Council for Islamic Revolution in Iraq (SCIRI) is the toughest and best organised of their main parties. The bumbling current prime minister, Ibrahim al-Jaafari, of the Dawa party, is said to want to keep his job but is unlikely to do so. Adel Abd al-Mahdi, the able former finance minister who is a SCIRI man, has a fair chance of replacing him. If he does, he may be shrewd enough to build a broader coalition government.

In any event, a new government may take weeks or longer to emerge. It must then, if it is sensible, amend the constitution to reassure the Sunnis that they will get a fair deal in the new Iraq. At that point, all being well, more insurgents might accept the new order, a newly legitimate government may begin to assert itself, and the Americans and their allies could start gradually leaving. There is a very long way to go before that may happen. But the upcoming election should be a big milestone on the way.

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Egypt's election

Not yet a democracy

Dec 8th 2005 | CAIRO
From The Economist print edition

A general election with more choice was still marred by thuggery and fraud

Get article background

Reuters

She only wanted to vote

STATE radio declared the general election a “splendid pageant of democracy”, yet the voting, staggered over three rounds and five weeks, was marked by fraud, bribery and thuggery that left at least 11 people dead. On paper, Egypt's ruling National Democratic Party (NDP) won a big enough majority to go on rubber-stamping laws, as it has since President Hosni Mubarak took office 24 years ago. But the election's other effects are far more telling.

The most obvious is the rise of the Muslim Brotherhood. The 77-year-old Islamist organisation has been banned by law since 1954 but has fielded candidates as independents since the 1980s. Wary of provoking the government, the Brotherhood ran for only 150 of parliament's 454 seats this time; yet its candidates polled nearly 40% of all the votes cast, winning at least 90 seats outright, a sixfold increase.

The Brothers would surely have won more, too, if it weren't for the crude means used to defend several NDP incumbents, once the strength of the Brothers' surge became clear after the first round in November. Such crudeness, including the arrest of some 1,500 Brotherhood supporters by the third round, is not new to Egyptian politics. But this time it prompted something that is: broad and vocal outrage.

Not only did independent monitors cry foul, so did many judges charged with supervising the voting. One public prosecutor, Noha al-Zeiny, achieved instant fame for blowing the whistle on her own experience of fraud, in a contest between a Brotherhood candidate and a former adviser to Mr Mubarak. The ballot counting she observed showed the Brotherhood challenger leading by a wide margin, yet the final tally, conducted behind closed doors, somehow produced a big win for the NDP. Other judges recounted still graver misdemeanours, such as riot police and plainclothes thugs beating off opposition voters, and police summarily closing polling stations. The respected judges' club, in a stormy public session, called for the interior minister to resign.

In the past, the Egyptian state wielded such power that none of this would have mattered much. But its official narration no longer drowns other voices. Fewer than a fifth of Egyptians now get their news from state television, while more than half follow the al-Jazeera satellite channel, whose crews were repeatedly harassed during the election. Readership of state-owned newspapers, such as the once-essential daily *al-Ahram*, is sinking fast as a dozen independent tabloids offer racier fare.

One of these, the weekly *al-Destour*, reported a case where residents of one Delta village captured three hired NDP thugs, videotaped their confessions, then traded them for five Muslim Brothers held by the police. Comparing scenes of helmeted police and armoured cars in Egypt's countryside with Gaza and Fallujah, one columnist invited readers to conclude that Egypt, too, is a country “under occupation”.

In much of the country, however, voting was fairly peaceful. What troubled some observers as much as the Brotherhood's surge or the government's panicked response was the near-extinction at the polls of the secular opposition. Enfeebled by emergency laws that preclude normal political activity, the country's 15 featherweight legal opposition parties failed to gain a dozen seats between them.

Oddly, that has not prevented the government from continuing to hound them. Ayman Nour, a liberal who won 8% of votes cast in September's presidential election, making him the closest challenger to Mr Mubarak, not only lost his parliamentary seat to a heavily-funded NDP challenger, but has been remanded in custody on a flimsy forgery charge.

The grubbiness of Egypt's politics has annoyed the American administration, which wants a smoother democratic transition in a country that absorbs an annual $1.8 billion in American aid. For Egyptians, it has produced other dilemmas. Many are worried by the seeming polarisation between the Brotherhood, which professes a reformist agenda but has never been tested, and a government that is just beginning to produce some economic progress, but has, largely by its own folly, badly damaged its political legitimacy.

The big question now is whether the government will feel obliged to legalise the Brotherhood as a party, and whether this parliament, against whose members 500-odd court challenges have already been made, will last long. The poll has achieved one firm result: it has strengthened Egypt's feeble political pulse. Perhaps, next time, the three-quarters of Egyptians who did not bother to vote will do so.

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The United Arab Emirates

Democracy by appointment

Dec 8th 2005 | DUBAI
From The Economist print edition

A tiny step towards representative government, but where might it lead?

IT IS very tentative—but mould-breaking all the same. Earlier this month, Sheikh Khalifa bin Zayed al-Nahyan, the monarch of Abu Dhabi who is also president of the Gulf's seven-country United Arab Emirates (UAE), said that a bit of democracy was in order. So half the deputies in the UAE's Federal National Council, a consultative body that stirs up a modicum of debate but makes no executive decisions, will henceforth be elected after a fashion, whereas at present all are appointed by a committee of senior sheikhs. In future, some 2,000 leading UAE figures will be appointed (yes, by the sheikhs) from the country's business, political, religious, cultural and educational elites, and they will then elect 20 of the council's 40 members.

People do not, in any event, seem to be thirsting for full-blooded democracy. Most of the rulers, particularly the Maktoums in Dubai and the Nahyans in Abu Dhabi, the UAE's two leading states, which have 16 of the council's 40 representatives between them, are popular. After all, they have presided over 30 years of peace and prosperity and share out enough of the wealth to keep people fairly happy.

Moreover, barely a fifth of the emirates' 4m residents are citizens: the rest are workers from abroad, many from India and Pakistan. In Dubai, the indigenes number only 150,000 out of nearly 1m people. All UAE citizens are in theory entitled to ask for an audience with their rulers on everything from monetary policy to marriage. But they are not entitled to kick them out of power—and there is no sign of the sheikhs giving them the chance of doing so any time soon.

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Iran

A top dissident refuses to give in

Dec 8th 2005 | TEHRAN
From The Economist print edition

Akbar Ganji, Iran's most outstanding dissident, is in renewed danger

AP

Unyielding Ganji, silenced and alone

LAST March, during the Persian New Year holiday, Akbar Ganji, Iran's best-known political prisoner, was cracking jokes into his mobile phone at the edge of the Iranian desert. Chubby from festive dishes of *polov* (rice, often with lamb) and delighted to be surrounded by his family, he showered this correspondent's two-year-old son with kisses before speeding off to keep an appointment with a dissident ayatollah and return to Tehran's Evin prison by the end of his holiday probation.

Nine months on, he is a sick man, severely weakened by the intermittent hunger strike he staged, over the summer and autumn, in protest against the conditions of his detention. He has reportedly been severely beaten and needs urgent attention to injuries to his feet and shoulder; his wife, Massoumeh Shaffii, says his blood pressure has plummeted and he is denied medicines and regular meals. Since November 25th, when told at the prison gates that a planned visit had been cancelled, she has had no news of her husband. She is “desperately worried” for his life.

Iran would be sorely embarrassed if Mr Ganji, a former journalist who counts Kofi Annan among his supporters, were to die in jail just a few months before his six-year prison sentence ends. (He is then due for a stint of internal exile.) His allies have made behind-the-scenes attempts to get him out, but the judiciary seems to be resisting; there is no sign that Evin's corrective techniques have persuaded him to soften his attacks on the Islamic Republic and the men who run it. He has reportedly refused to retract calls for Ayatollah Ali Khamenei, Iran's appointed supreme leader, to submit to direct elections.

Given the tendency of Iranian democracy-seekers to recant in jail, it is perhaps surprising how many people regard Mr Ganji, the exception, with mixed feelings. Iran's reformists thrilled to his articles in the late 1990s, which accused top officials of being behind the extra-judicial murder of dissidents. But they blamed him for the judiciary's backlash, which silenced the reformist press. Mr Ganji feels the effects. Iran's newspapers shy from reporting the details of his incarceration. Iran's dissident hero, as he admitted when he was briefly let out for medical treatment this summer, has slipped from most Iranians' view.

Some old friends accuse him of “going it alone” and of disdaining the unity and discipline that the reformists must display if they are to threaten their conservative opponents, who have won control of parliament and the presidency in the past two years. Indeed, it is hard to see what Mr Ganji's hunger strike achieved. He is apparently still being prevented from talking to other

prisoners, despite official denials that solitary confinement exists in Iranian jails. His lawyer is under arrest too, allegedly for an unrelated crime.

None of Iran's pro-democracy forces, whether moderate Islamists or secularists like Mr Ganji, has the programme or personalities to galvanise public opinion. The reformers are still reeling from the eclipse of their figurehead, the former president, Muhammad Khatami. In a system that works on compromise and backroom deals, Mr Ganji is an oddity: a courageous and obdurate man willing to lay down his life on a matter of principle.

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South Africa

Kiss of death?

Dec 8th 2005 | JOHANNESBURG
From The Economist print edition

A rape charge against a once-possible next president may end his career

Get article background

EPA

Jacob falls off his ladder

AFTER weeks of speculation, Jacob Zuma, South Africa's former vice-president, was formally charged with rape on December 6th. A 31-year-old woman, believed to be an HIV-positive AIDS campaigner whose family has close ties with Mr Zuma, accused him last month of having raped her at his home. Mr Zuma, who was sacked as vice-president in June and is facing corruption charges, maintains his innocence. But this could be the final blow to the political career of a man who was once a top contender to succeed the current president, Thabo Mbeki.

Within the ruling African National Congress (ANC) and its political allies, Mr Zuma has been a rallying figure for those unhappy with Mr Mbeki's political and economic leadership. The leaders of the Congress of South African Trade Unions (Cosatu), the South African Communist Party and the ANC Youth League say he is the victim of a political conspiracy. Until now, if he were to be cleared of corruption, he might still have stood a good chance of winning the ANC's nomination for the 2009 presidential race.

But the rape charges change everything, leaving him more isolated than ever. Mr Zuma, still formally the ANC's deputy leader, has suspended his participation in the ANC's top bodies until the rape trial is over. His erstwhile Communist allies and Cosatu now say their support for Mr Zuma is one of principle only, and does not mean they endorse him as the next president. There have been grumbles in both movements over whether it was ever such a good idea to back him at all.

For William Gumede, author of a recent book on Mr Mbeki and the ANC, this heralds the end of Mr Zuma's political career. The rape case, he argues, is the last straw, confirming doubts within the ranks of the disgruntled as to whether Mr Zuma should ever have been the beneficiary of their unhappiness with Mr Mbeki. Mr Zuma's economic views seem far more in line with the current government's policy than the labour movement's. And even if cleared of rape, any confirmation of unprotected sex would seriously question the judgment of the former vice-president, who used to head the national AIDS body and a moral regeneration initiative.

With or without Mr Zuma in the picture, the tensions his difficulties have generated in the ANC and in the alliance will remain. Whoever now wins the ANC's presidential nomination will have a lot of fences to mend and bridges to build.

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European migration

The brain-drain cycle

Dec 8th 2005 | VILNIUS AND WARSAW
From The Economist print edition

Europe's commendable migration from east to west

THE Oxford Belfry is a typical modern British hotel: big, bland and strikingly lacking in native staff. Among the multinational workforce, the cheerful, omnipresent Poles stand out: at the front desk, in the bars and restaurants, cleaning and (while reading an economics textbook) supervising the gym and pool.

“It's the work ethic. Many British people think the service industries are about servitude,” complains John Cotter, a senior manager. Since Poland joined the European Union last year, his staffing headaches have largely been over. “We are inundated with applications from Poland,” he says. Indeed, the new reservoir of good, cheap labour is a boon for many employers in Britain, Ireland and Sweden, the only old EU countries that have fully opened their doors to workers from the new members. But now some central European countries, especially Poland, Lithuania and Latvia, are worried that too many of their best people are leaving for higher pay and a better life.

Big migrations in Europe are not new. After the collapse of communism, millions moved abroad for political reasons: Jews to Israel, ethnic Germans home from the Soviet Union, Russians back to Russia. Others were refugees from wars, or migrated illegally. But, says Ali Mansoor, a World Bank economist working on a study of post-communist migration due to be published next year, this one is different: driven by economics not politics, and largely legal not illegal.

One of his biggest problems is measuring the scale of the new migration. Official statistics underestimate the numbers, perhaps hugely. In Britain, where central Europeans are supposed to register before seeking work, but often do not, there are (supposedly) only 95 Polish plumbers. A

tabloid newspaper managed to find that many in a day, using a postcard-sized advertisement in a Polish-populated part of west London. The total number of workers registered in Britain from the new members is supposedly only around 175,000. But by some accounts, there are 300,000 Poles alone (and another 100,000 in Ireland). Latvian officials think at least 50,000 people, or 2% of the population, have gone abroad to work; Lithuania estimates more than 100,000, or 3%.

These departures leave labour-thirsty industries such as construction and retailing short of workers at home. Either they must import labour from farther east, or they must raise wages. Some poor rural regions are visibly depopulated, with so many adults gone that children and old folk feel abandoned.

Yet most of the moans are overdone. For a start, the era of migration is likely to be temporary. “We have ten years before the demographics kick in,” says Mr Mansoor, “after which there just won't be the young people to emigrate.” That is not wholly good news: most central and east European countries face the nasty combination of a rich-country age structure with a poor-country economy. But it highlights the biggest cause of migration now: a big pool of unemployed, underpaid or under-appreciated people for whom going abroad makes a lot of sense.

If pay and prospects in a Latvian village are dismal, it is probably better to pick mushrooms in Ireland (a popular choice), at least for a while. It is drudgery, but it brings cash, and the chance of something better, either abroad or at home. “You have to look at the whole life-cycle,” argues Willem Buiter, a former chief economist at the European Bank for Reconstruction and Development (EBRD), who is now at the London School of Economics. “Young migrants pick up skills, networks and funds.”

Brain drains can aggravate a bad situation, with so many people leaving a poor country that its problems worsen. But central and eastern Europe is a long way from that. For a start, returning home is cheap and quick. Booked in advance, budget flights between Britain and Poland can cost just a few pounds. That makes migration more efficient: people can choose easily how long they go for, and where.

Second, the new EU members are well placed to be a “brain factory”. Migration sends a signal that should—if education and training are working properly—stimulate greater supply of the skills that the outside world wants. The big demand for Polish bus drivers in Britain offers an obvious incentive for Poles with related skills (driving lorries, for example) to adapt.

Third, there are plenty of brains to drain—up to twice as many doctors per head of population, for example, as most developed countries think necessary, says Libor Krkoska of the EBRD. The collapsing birthrate means there are plenty of spare teachers too.

Migration could, however, be made more efficient. Heikki Mattila, of the International Organisation for Migration's Budapest office, highlights “brain waste”: well educated migrants doing menial jobs because their qualifications are not recognised. Despite EU rules, this happens all too often. Tony Venables of European Citizen Action Service, a Brussels think-tank, argues that complex (and often illegal) barriers that such countries as France and Italy put in the way of migrants encourage abuse and bad practice.

For the countries that export brains, there are two big challenges. One is to consider why people are leaving. Low pay in the public sector is one reason; rigid or corrupt institutions may be another. Revealingly, many central Europeans say they are especially attracted by the relatively flexible and unbureaucratic British way of life—such as a one-page quarterly tax return for small firms. Mr Mansoor's work highlights the link between emigration and the quality of life in the source countries. “The demand is known and given. The difference is in the countries that supply it,” he says.

The second task is to make returning home a case of “when” rather than “if”, by removing bureaucratic obstacles and maintaining ties between diasporas and the homeland. The authorities in Vilnius hope that sponsoring new Lithuanian-language schools in places like Dublin will remove a barrier for émigré families who are considering returning: keeping children's language skills honed makes parents less worried about disrupting their education if they go back.

For money isn't everything. Mantas Adomenas, a star Lithuanian classical scholar, studied at Oxford and Cambridge in the 1990s, writing a doctorate on “Plato's reception of the pre-Socratic philosophers”. But after eight years as a Cambridge don, he went home, taking a 75% pay cut to teach at Vilnius University and campaign against corruption. His friends, he says, chide him as a big fish in a small pond. He responds by quoting Plutarch, who 20 centuries ago refused to join the brain drain to Athens “lest my small city should become even smaller.”

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Lithuania and George Soros

No good deed unpunished

Dec 8th 2005 | VILNIUS
From The Economist print edition

A billionaire under attack

Get article background

AP

How to thank a philanthropist

IT SEEMS rather ungrateful. After the collapse of communism, George Soros, a Hungarian-born billionaire, endowed a swathe of foundations in the new democracies of eastern Europe. The $65m he spent in Lithuania has been notably successful. The foundation, run by locals, sponsored much-needed new school textbooks, plus translations of works ranging from Aristotle to Umberto Eco. Soros grants and contracts have kept many Lithuanian intellectuals from going hungry. Other projects include work on drug addiction and AIDS.

But over the past three weeks, detailed attacks on Mr Soros in *Respublika*, a leading tabloid, have painted him as a malevolent outside meddler in Lithuania's affairs. It is a familiar theme. A series last year asked, “Who rules the world?” (Jews and gays, it concluded).

The new attacks are also aimed at religious and political figures only indirectly connected with the Soros foundation, including the country's pro-western president, Valdas Adamkus. The targets are all disliked by the ruling Labour Party, which, with its allies, has asked Lithuania's security services to investigate the Soros foundation's “financial schemes and networks”, on the ground that they “pose a threat to national security” and are “targeted not at consolidating, but dividing, society”.

Sorosites stayed aloof at first, but they have now counter-attacked. An open letter signed by many of the country's best-known intellectuals has asked *Respublika* to stop its “destructive” attacks.

What is going on? Some blame Russia. Soros-funded outfits in other ex-Soviet places, such as Georgia and Ukraine, have come under similar-sounding attacks. “Stoking a fictitious scandal about secret western influence neutralises real fears about Russia,” suggests one senior official. Another theory is that the anti-corruption campaigns financed by Mr Soros have been too successful: they have highlighted big kickbacks in the distribution of European Union aid.

Mr Soros is winding down his efforts in the richer parts of the post-communist world, where the “open societies” that he favours seem to be thriving. Perhaps he should hang on a bit in Lithuania.

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Russian politics

A message from Moscow

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The Moscow city council election confirms the Kremlin's tight grip

AP

The Kremlin's election view

THE election to Moscow's city council on December 4th was widely seen as a dress rehearsal for Russia's parliamentary vote in 2007. If it was, the main spectacle promises to be both well choreographed and poorly attended.

The Moscow poll was a fine example of "managed democracy", in which the Kremlin's hand was visible in everything from the advertising to the final result. Both were heavily biased towards United Russia, the party backed by Vladimir Putin, Russia's president. Only 34% of Muscovites turned out to vote. "They will decide for us who to elect," said one cynical voter in the eastern part of the city. Officially, United Russia won 28 of the 35 seats. The Communists took 17% of the vote, which translated into four seats. The remaining three went to a coalition of liberal parties. The result was suspiciously similar to one in Chechnya a week earlier.

The only serious challenge to United Russia might have come from Rodina, a nationalist party that was scoring strongly in opinion polls before the vote. But it was banned from the election, on the ground that one of its television advertisements incited ethnic hatred. It showed a blonde Russian woman pushing a pram over watermelon rinds tossed on the ground by four men from the Caucasus. The men are approached by Dmitry Rogozin, Rodina's leader, plus a comrade. "Pick it up and clear up after yourself," says Mr Rogozin. "Do you understand Russian?" adds the comrade. The slogan was: "Let us clear our city of rubbish." After the riots in France, Rodina translated the ad into French and pretended it was set in Paris.

Nasty, to be sure. But why was Rodina banned (technically by the courts, though it is unlikely that the Kremlin was not involved)? The initial complaint was filed by Vladimir Zhirinovsky, leader of a rabidly nationalist party that has often acted in the interests of the Kremlin. No doubt the courts that banned Rodina acted likewise.

Rodina was launched three years ago with the help of Kremlin spin-doctors. Its aim was to chip away at Communist votes in the parliamentary election of 2003. It has since grown into an independent political force that propagates and feeds on Russian nationalism and xenophobia. "There are too many migrants in Moscow and they all want to impose their culture on us," says Nina Ivanova, a pensioner who supports Rodina. Several apparently racist attacks took place on the eve of the election, with one man from the mostly Muslim republic of Dagestan being knifed to death. In a Moscow by-election for a seat in the national parliament held on the same day, Vladimir Kvachkov, an anti-Semitic former military intelligence officer who is on trial for the attempted murder of Anatoly Chubais, a reformer of the 1990s, won almost 30% of the vote.

The ban on Rodina brought extra votes to the Communists, who did better than expected. The liberals' share of 11% was depressingly low—and it was won only after a pact between Yabloko and the Union of Right Forces, the two main liberal parties, hitherto hamstrung by bickering. The liberals say the vote was rigged. There were reports of voters being bused between one polling station and another, plus other well-honed Russian subterfuges. One observer was thrown out of a polling station for moving furniture, apparently creating a “fire hazard”.

United Russia would surely have won even a fair election. Its candidate list was headed by Yuri Luzhkov, the popular can-do mayor of Moscow, a former rival-turned-ally of Mr Putin's, even though he never intended to take up his seat. But why take the risk? In a country as centralised as Russia is these days, the capital sets the tone for the rest of the country. The message from Moscow this week will be transmitted and amplified across the country—and into the 2007 election.

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Italy and the church

Ruini's rules

Dec 8th 2005 | ROME
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The political influence of the Catholic Church in Italy is growing

Get article background

THROUGHOUT Europe, Roman Catholic prelates and politicians are giving up the fight to keep illegal most of the practices that they consider sinful. One by one, in former bastions of the faith, contraception, divorce and (with the notable exception of Ireland) abortion have all been legalised. But in Italy, once at the forefront of this liberalising drive, the tide has suddenly started to flow the other way. The 1978 abortion law has become a big issue ahead of next April's general election. And the Catholic Church is taking a more overt role in Italian politics than it has done for many years.

The speaker of the lower house of the Italian parliament, Pier Ferdinando Casini, this week gave the go-ahead for a parliamentary inquiry into the functioning of the abortion law, after complaints by Francesco Storace, the health minister in Silvio Berlusconi's centre-right government. Mr Storace, a member of the formerly neo-fascist National Alliance, maintains that the law was intended to minimise as well as to legalise abortions, but that this dual purpose has been forgotten. His solution is to let members of the Catholic pro-life movement into state-financed family-planning clinics.

A few days earlier, in an apparent pre-emptive strike, a group of opposition parliamentarians put forward a plan that may reduce the number of abortions that are sought on economic grounds. A proposed amendment to next year's budget would provide for pregnant women in economically precarious circumstances to receive between €250 ($300) and €350 a month for up to six months before the birth. Meanwhile, Mr Storace is engaged in a tug-of-war with mostly left-led regional governments over trials of an abortion pill, mifepristone, the use of which he seems bent on curbing by insisting it is used only by hospital in-patients.

Some of what is going on is simply electioneering. By championing Catholic causes, the centre-right hopes both to woo Catholic voters and to drive a wedge into the opposition centre-left coalition, which stretches from secular Marxists to progressive Catholics such as its leader, Romano Prodi. But suspicion is growing that the latest skirmishes may form part of a wider plan by the church to regain the grip on Italian politics that it lost in the early 1990s, when the Christian Democratic party collapsed in a welter of scandal.

Under the leadership of Cardinal Camillo Ruini, head of the Italian bishops' conference and vicar of Rome, the Italian church has become increasingly assertive. Cardinal Ruini recently spoke out against intermarriage between Christians and Muslims. Last June, the church played a key role in a referendum that sought to overturn parts of a restrictive law on *in vitro* fertilisation, which had been passed with the help of a cross-party majority of Catholic parliamentarians.

To be valid, referendums in Italy need to attract the votes of more than half the electorate. Apparently fearing defeat, Cardinal Ruini called on Catholics to stay away so that the initiative

would be thwarted with help from the merely apathetic. His move was so blatantly tactical (and questionably democratic) that it prompted criticism from believers, including Mr Prodi and the leader of the National Alliance, Gianfranco Fini. But it worked. Only 26% of the electorate turned out to vote, so the legislation remained in force.

That showed what the cardinal could achieve even with parliamentary allies scattered on both sides of the house. After the collapse of Italy's old political order and the creation of two big blocks, some Christian Democrats found a home on the left, others on the right. But now Mr Berlusconi is putting things into reverse. At the insistence of the Union of Centre and Christian Democrats, part of his own coalition, next year's election will be held using full proportional representation. The individual parties will accordingly run separately.

Initially, they can be expected once again to regroup into two opposing blocks. But if Italy's next government were to fail, it is quite possible that a Christian Democrat-dominated centre might re-emerge, offering the nation salvation in this world as well as the next.

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Economist.com WORLD EUROPE

Charlemagne

The puny economic powerhouse

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The European Union is not as powerful a global economic actor as its leaders sometimes pretend

"WHEN it chooses to pursue a truly federal policy, the EU can play a decisive role on the world stage. We have the ability, not only to resist initiatives that we do not support...but also to set the international agenda." So said Pascal Lamy, then EU trade commissioner but now head of the World Trade Organisation, in 2004. It is a truth almost universally acknowledged: in global economics, the EU acting together is more effective than the sum of its parts. Even those who are not interested in economics argue that trade is a good illustration of European "soft power". By helping to establish commonly agreed rules (in this example, for the world economy, but it could be done for other things), the EU wields an influence it could not otherwise hope for—and which partly offsets its scarcity of guns and resolve.

But is it really true? Next week will provide a test, when European bigwigs escape their unsatisfactory wrangling over the EU budget for a different form of wrangling at the world trade talks in Hong Kong. Even in Hong Kong, though, the Europeans will be in the dock over farm trade. So which is more important: that everybody else is resisting European policies on agriculture? Or that nothing can be done without European agreement? In other words: how much does Europe really set the agenda in global economic-policy making?

In terms of weight, the answer ought to be quite a lot. The EU accounts for between a third and a fifth of the world economy, depending on how you set exchange rates. The euro is the second most heavily traded world currency; the pound sterling is fourth. Europeans hold huge external assets and liabilities. Since the euro first came into being, gross capital flows into and out of it have been slightly greater than those into and out of the dollar. Europeans may not be able to fight wars, to cut unemployment or to integrate their minorities: but by golly they have economic heft. In a world of tigers and dragons, they are the cows: slow, useful and, above all, big.

On the face of it, too, Europeans wield economic power to go with their weight. Four of the members of the G8 group of rich countries are European. So are two-thirds of the members of the OECD, another mostly-rich-country club. Jean Pisani-Ferry, head of Bruegel, a Brussels think-tank, points out that European countries hold 30% of the seats on the executive boards of the IMF and World Bank, and over 30% of those institutions' voting rights—giving them nearly twice as much weight as the United States. Italy, Belgium and the Netherlands each have more voting power in the Bretton Woods twins than Brazil, China or India, an amazing relic from the post-war world.*

Yet despite it all, Europeans are surprisingly passive when it comes to setting the world's economic agenda. There are two exceptions: trade and climate change. Creeping protectionism may be undermining Europe's influence, especially with big developing countries such as China, India and Brazil. Still, over both trade and climate change, the EU has priorities, argues for them and has, at times, been able to bring others along—for good or ill. But these are not typical. Elsewhere in global economics, Europeans either contradict one another or have little to say, and almost no influence to boast of. When it comes to the world economy, Europe is a case of over-representation but under-achievement.

Thus Europeans have little to offer in international finance, even though, for some, the hope that the euro would rival the dollar as a reserve currency was one of the main reasons for creating it. Germany and Britain disagree about how much poor-country debt to forgive. Europeans have been silent about two of the biggest economic issues of the past few years, China's exchange-rate policy and the world's current-account imbalances.

Perhaps the Europeans hope that, because the overall EU current account has barely budged, while America's deficit and Asia's surpluses have both soared, the unwinding of global imbalances will not affect them. If so, they are wrong. Europeans have been buying dollar assets as if there is no tomorrow. Euro-area holdings of dollar-denominated assets rose by $1 trillion between 2000 and 2004—almost as big an increase as in Asia. If the dollar fell sharply, so would the value of these assets.

It is curious that Europeans have nothing to say on a matter that could affect them deeply. Perhaps there is not much they can do. But that has not stopped the American administration from loudly demanding that China revalue its currency, for instance. In any case, as a recent paper* by Alan Ahearne and Jürgen von Hagen points out, Europeans could do something. China has said it will start pegging the yuan to a basket of currencies. The EU might influence the weight of the euro in that basket. Europe's silence seems less a realistic appraisal of limited power than a case of burying its head in the sand.

Unity is strength

The question is why. There are two plausible explanations. One is that Europeans disagree because their interests diverge too much. Britain is a large exporter of financial services, Germany a large exporter of manufactured goods. But EU countries differ just as much over trade and agriculture. Yet they manage to reach a common position on trade—albeit with difficulty. And they have a common agricultural policy (unfortunately).

That points towards the second explanation. European countries could settle their differences but they fail to do so because of dysfunctional institutions. Except in euro-area monetary policy and in trade, most macroeconomic matters are firmly in the hands of national European governments. These governments will not voluntarily give up their over-representation in the G8 or the IMF in favour of a common EU stance. In short, in the world economy as in foreign policy, Europeans cannot really agree how to distribute power among themselves.

*Both papers are at www.bruegel.org

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Correction: Survey of Italy

Dec 8th 2005
From The Economist print edition

In our survey of Italy (November 26th), we said that Luxottica produced most of its sunglasses abroad (see article). In fact it produces 85% of them in Italy.

We also said that Italy's public debt was 120% of GDP, and no longer falling (see article). This is the standard OECD figure. The European Commission and Eurostat figure, which defines public debt in accordance with the Maastricht treaty, is 108%—though it is rising.

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The economy and public finances

Down but not out

Dec 8th 2005
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Don't write off the chancellor of the exchequer

Reuters

FOR the Conservatives under their new leader, David Cameron, the main target is not Tony Blair, who will bow out before the next election. It is Gordon Brown, the man who seems certain to replace him. This week must have appeared the perfect opportunity to take a pot at the chancellor of the exchequer. The day before Mr Cameron was declared leader, Mr Brown presented his ninth pre-budget report—in effect, a mini-budget—from a much weaker position than the commanding heights he has so often occupied.

Mr Brown takes pride in his new monetary and fiscal arrangements for running the economy and public finances. Unfortunately, they have not prevented some familiar old faults from emerging. On December 5th, the chancellor had to concede the inevitable: that the economy will grow in 2005 by only 1.75%, half the rate he had forecast in his March budget. Furthermore, he now expects only a modest pick-up next year, with growth of 2-2.5% in 2006, a lower rate than he predicted in March.

Along with a spluttering economy, Mr Brown had to own up to another set of disappointing figures on the public finances. The budget deficit will barely improve this year, edging down to £37 billion ($64 billion) from £39 billion in 2004-05 (worse than the £34 billion estimated in the budget). This is the third successive year in which the deficit has been at or above 3% of GDP. And in 2006-07, the chancellor expects a deficit of £34 billion, sharply higher than the £29 billion he forecast in March.

This was enough to cue an over-the-top attack from George Osborne, the Conservative shadow chancellor. Anyone listening to his speech might imagine that Mr Brown had totally lost his grip, and that the economy and public finances were going to hell in a handbasket.

It may not be the best of times for Mr Brown but in truth it is not the worst of times either. Growth of 1.75% this year is disappointing, given an underlying trend rate of around 2.5%. But for the fifth year running it compares favourably with the performance of Europe's other big economies. In forecasts published on November 29th, the OECD said France would grow by 1.6% in 2005, Germany by 1.1% and Italy by 0.2%; and it predicts that Britain will stay ahead in 2006.

A more pertinent worry is that growth will probably stay subdued over the next few years. At best, the prospects for consumers are dispiriting as stagnation in the housing market stifles the feel-good factor. As the economy shifts its emphasis from consumption towards exports and investment, it is likely to grow more slowly than usual. Furthermore, the underlying growth of capacity will be trimmed as high oil prices make some energy-intensive capital unprofitable to use.

Mr Brown is more vulnerable on the public finances than on the economy. An irresponsible spending spree and a string of deficits have undermined his earlier claim to be a prudent chancellor. The deterioration in Britain's budget balance since 2000 has been the second-biggest among rich countries.

Once again, however, the news is bad rather than terrible. A budget deficit of 3% of GDP, while unwelcome, is not disastrously high, especially since Britain's stock of outstanding public debt is low by international standards. More important, the public finances are arguably doing rather better than might be expected in a weaker economy.

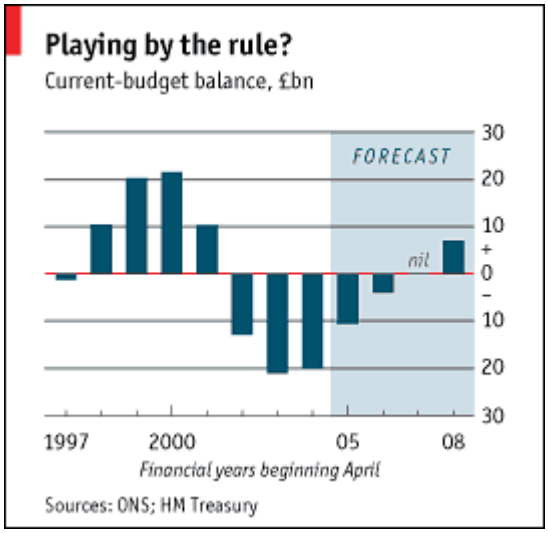
Mr Brown pays especially close attention to the current-budget balance, which excludes investment. This is because it determines whether he will meet his “golden rule” of borrowing only to invest, measured over the economic cycle. The current budget remains in deficit, but the gap is expected to narrow from £20 billion in 2004-05 to £10.5 billion in 2005-06, a creditable reduction given the economic slowdown (see chart). Corporation-tax revenues from the financial sector have been quite healthy. And higher oil prices have boosted receipts from North Sea oil.

Whether or not this improvement can be sustained is moot. Most analysts reckon that there is a hole of at least £10 billion in the public finances. Judging by the measures Mr Brown announced this week, he agrees with them. But it seems that he will not fill the hole with a similar-sized tax increase in his 2006 budget. Instead he has taken a swipe at North Sea oil producers, helping himself to a further £2 billion a year. The move has infuriated oil companies (see article).

More unexpectedly, the chancellor intends to squeeze spending from spring 2008, when the next set of expenditure plans comes into effect. Current spending will grow in real terms by 1.9% a year in the three years to 2010-11, somewhat less than likely economic growth. The resulting squeeze will deliver spending in five years' time that is some £8 billion less, in today's money, than was previously expected, according to the Institute for Fiscal Studies, an independent think-tank.

Mr Brown is writing the third act of his lengthy stint as chancellor. In the first, from 1997 to 1999, he controlled spending rigorously and pushed up taxes. In the second, which started in 2000, he pumped up spending and ran big deficits, despite a substantial tax increase in his 2002

budget. Now the prudent-turned-prodigal chancellor plans to clamp down on spending in the second half of this parliament, when he expects to be prime minister.



Mr Brown cannot claim a return to prudence, however. For one thing, he is taking a risk by postponing the harsh medicine, since it leaves him with little room for manoeuvre if things go wrong meanwhile. For another, his forecasts assume that economic slowdown has opened up plenty of spare capacity, which will allow strong recovery in 2007 and 2008.

This optimistic view is not shared by the OECD, which said in a survey of the British economy in October that “output remains close to capacity”. And Mr Brown has again altered the dates of the cycle over which the golden rule is assessed, so that it extends for 12 years to 2008-09. This latest change has robbed it of what little credibility remained to it as a guide to his fiscal performance.

Despite these risks, the political attractions of the chancellor's strategy are clear. It will be much harder for the Conservatives to argue for lower taxes if Mr Brown is already tightening spending budgets and seeking better value for money in public services. As long as the economy avoids a recession, Mr Brown will still be a formidable foe at the next election.

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Oil and gas

Till the pipes squeak

Dec 8th 2005
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Once again, it is the North Sea oil companies that foot the bill

MOST Treasury-watchers, conscious of Britain's deteriorating public finances, had predicted that the chancellor would announce a fiscal raid of some sort in his pre-budget report. The only question was who his targets would be. The front-runners were the banks and the oil firms: both highly profitable, neither particularly loved by voters.

In the event the axe fell on the North Sea oil companies, as Gordon Brown announced an increase in the effective corporation tax that they have to pay from 40%—the level he set in 2002—to 50% (most firms pay 30%). That should raise an extra £2 billion ($3.5 billion) next year, on top of the £9 billion already forecast.

The reaction was predictably scathing. The UK Offshore Operators Association (UKOOA), a trade body, said the move was “almost beyond comprehension” and warned that it would cost jobs and scare away investment.

Mr Brown says that Britain still boasts low taxes compared with other countries—oil and gas producers in Norway, for example, face a net marginal rate of 78%, while countries such as Libya and Kazakhstan charge 80% or more and are riskier to boot.

The oilmen claim that this misses the point. Mike Tholen, the UKOOA's chief economist, says that because Britain's part of the North Sea is mature, most new finds are small. Investors may decide that bigger projects in higher-tax countries will yield fatter profits in the long run. He points out that after Mr Brown's 2002 tax hike, the number of new wells drilled fell by 25% (though oil prices were lower then too).

Most analysts think that North Sea companies will carry on, for now. Political stability counts for a lot, and high oil prices will keep most projects profitable even with higher taxes.

Even so, Mr Brown's timing looks ill-judged. The government has just embarked on an energy review that is expected to give the go-ahead for a new generation of nuclear power stations. Firms will invest in such projects only if they can model future costs reliably. Whatever the cash shortage, this is an odd time for ministers to be mucking about with energy taxes.

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Child care

A faltering start

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A pet programme for poor families may not be doing much good

A pet programme for poor families may not be doing much good

FOR parents of pre-school children in Abbey, a poor neighbourhood in Cambridge, Monday means Baby Rhyme Time. On Tuesday, it's swimming; on Wednesday, messy play; on Thursday, a pregnancy support group. And on Friday, parents can drop their toddlers off at a creche and get advice on benefits.

Take the train from Cambridge into London and you arrive at Kings Cross station. Nearby, there's a nursery with nearly 120 subsidised places, some reserved for children with special needs. Residents can use a parents' centre offering everything from yoga for mothers to baby massage. It all sounds jolly, and potentially useful—and the activities are all free.

But will local children go on to do better in school, or grow up more employable and less likely to turn to crime? These are the grand claims behind Sure Start, the government's flagship programme to provide child care, early-years education and parental support in the most deprived areas of England.

Deprivation does its damage pretty fast: by the time poor children are two or three years old, they are outperformed by rich ones in verbal ability and social functioning. So helping them early would seem crucial. Since Sure Start was launched in 1999, 524 local programmes have opened, £3.1 billion ($5.4 billion) has been spent and untold quantities of playdough have been trampled into carpet tiles across the land—with, sadly, not a lot to show for it.

At least, that is the interim conclusion of a painstaking (and very expensive) government-commissioned evaluation being carried out by a team based at the Institute for the Study of Children, Families & Social Issues at Birkbeck, University of London. Families in Sure Start areas seemed to be only slightly better off than those who lived in similar areas where the programme wasn't yet up and running, and in only a very few ways: a little less chaotic, with slightly more tolerant mothers and better-behaved children. Even more disturbingly, the benefits did not extend to the very worst-off families, where children's language development was comparatively delayed.

Sure Start is not directed at struggling individuals, but covers whole neighbourhoods, with all residents eligible. Unsurprisingly, the best-off are first to take up whatever is on offer, tending to be surer of themselves and less wary of the authorities. This is not a problem for Sure Start Cambridge, which covers a uniformly deprived patch of a prosperous city. But staff in more socially mixed London must work at finding those who most need help.

This is why the negative findings are not all that surprising, according to the study's director, Edward Melhuish. It takes about three years before a programme gets into full swing, with another three years before it reaches large numbers of the well-educated and confident—and only then do the most deprived think about joining in. Since many of the programmes had only been running

for around 18 months at the time of the evaluation, it may simply have been too soon to spot genuine benefits.

Advocates of Sure Start say that even before poorer families participate, it can help by making poor neighbourhoods better places in which to be. Many benefits will be second-hand. For example, a child will do better in school if Sure Start has improved his classmates' behaviour, even if his own family never got involved.

The national evaluation has left local Sure Start workers feeling aggrieved. They are convinced that they are doing good work, making a big difference to the lives of some very badly-off people. But the tangible results are hard to pin down.

That may not bother members of the Labour government, who have staked a lot on this programme. They hope that the child care on offer will help poor parents back into work, that the pre-school education will enable children to do better at their studies—and that if they themselves look family-friendly, women will keep voting for them. Sure Start is quintessentially New Labour: according to the chancellor, Gordon Brown, “there is a difference between the old welfare state of immunisation and maternity units and the new welfare state of early help, funding for parents and Sure Start.”

Nor is the government likely to be swayed by lack of hard evidence that Sure Start is justifying its substantial cost. In September, when some of the Birkbeck team's equivocal findings were leaked, Beverley Hughes, the minister for children, young people and families, declared defiantly that the government was “committed to building on Sure Start”.

The programme is to be extended across the country, and by 2010 every child under four will have access to one of 3,500 neighbourhood centres. These will be run by local authorities, which seems a shame. One of the clearer research findings was that programmes led by healthcare providers were more effective.

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Economist.com WORLD EUROPE

London buses

Driving gently into that good night

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The end of the road for London's most famous bus

Getty Images

LONDONERS are learning not to trust their mayor, Ken Livingstone, especially when it comes to transport. After all but promising to freeze the city's congestion charge for a decade in 2003, he raised it by 60% this year. Asked in 2001 about replacing London's Routemaster bus—the red, curvaceous, 1950s double-decker famous the world over—he replied that only a “ghastly dehumanised moron” would consider getting rid of such an iconic vehicle. Four years later, the morons have had the last laugh. The final Routemaster retired from commercial service on December 9th.

London's self-appointed commentariat has lined up to complain. Journalists have written hundreds of wistful articles about the British-built Routemaster. Architectural critics have labelled it a design classic. Public-safety campaigners lament the loss of the avuncular bus conductor, surplus to requirements on modern vehicles. Some wilder-eyed worriers suggest that he should be kept on to prevent terrorist attacks.

Then there is rage over the Routemaster's perceived replacement: the 18-metre “bendy bus”. They are everything the Routemaster is not—modern, boring and (horrors) German. A series of well-publicised engine fires has not helped.

But protesters are overdoing it. The Routemaster was not popular when it was first produced. Sunderland and London were the only cities that bought any then. And the days of its dominance are past: when Transport for London (TfL) was created in 2001, the buses ran on a mere 20 of its 700 routes. Bendy buses have fully replaced them on only three, and newer double-deckers on the rest.

Nor are the lamentations universal. Wheelchair users prefer a ghastly modern bus they can board to a romantic old one they can't. With that in mind, David Morris, one of Mr Livingstone's advisers, announced rather grandly that “the end of the Routemaster marks the end of transport apartheid.” TfL points out that passengers seem happy, even on the new bendy-bus routes: 78% of people on those routes polled after the change said that service was as good or better, although Londoners as a whole disagree.

Still, TfL is not blind to the commercial possibilities of nostalgia. The Routemaster will not disappear entirely from London's streets. Two “heritage” routes will take busloads of tourists past the Bank of England and St Paul's Cathedral—two other icons of historic London.

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Economist.com WORLD EUROPE

ITV and the internet

School ties

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Another "old media" company tries to leap on to the internet

IN ITS heyday in the 1980s, ITV's show "Blind Date" sometimes drew a national audience of over 17m people. Britain's largest commercial terrestrial broadcaster will never be so popular again. Its top shows now rarely attract more than 10m viewers, because its audience is fragmenting among lots of new channels. Advertising revenues at its main channel, ITV1, are falling as a result, and the company is under pressure to come up with a convincing strategy for the future. This week ITV said it would buy Friends Reunited, a group of websites, for as much as £175m—£120m now plus another £55m in 2009 if the business meets profit targets.

People in the media business agree that Friends Reunited has strong prospects. An executive at ITV says that some newspaper firms offered more money for it, but its founders thought ITV was the best fit. Daily Mail & General Trust, one rival suitor, said on December 8th that it would buy a property website, Fastcrop, for £48m.

The site was started in 2000 when Julie Pankhurst, recently pregnant, wanted to get in touch with old schoolfriends who might be expecting too. Millions of people of all ages entered their names in lists of schools, universities and workplaces, and got in touch with each other, often with dramatic consequences. The site is infamous for prompting people to leave their marriages and run off with old flames.

Friends Reunited has 15m members and 1m paying subscribers. It says its revenues will grow by 50% in 2006 and that it expects £6.6m of profits this year (ITV made £340m in 2004). It has also succeeded in growing beyond its school network, with a dating site, a genealogy site, a job site and a social-networking site.

Can it solve ITV's long-term problems? The company has already moved from being a one-channel to a multi-channel firm, says Jeff Henry, head of its consumer business, and this acquisition will take it into "multi-media". With Friends Reunited to add to ITV.com, ITV will jump to eighth place by number of users on the internet, just behind BBC Online, eBay and the big portals. About 30% of revenues at ITV now come from its new digital channels—ITV2, ITV3 and ITV4—and its consumer division, which includes ITV Mobile. The company wants only half or less of its revenues to come from ITV1 by 2012.

Some analysts and investors, however, would prefer ITV to concentrate on improving its core television business, or simply to return cash to shareholders. "Buying Friends Reunited is a small diversification with minimal financial impact," says Sarah Simon, media analyst at Morgan Stanley, an investment bank. Some changes to the core business may come soon: ITV is considering closing its digital news channel, for instance, which has lost tens of millions of pounds. Scepticism about Friends Reunited is also due to ITV's poor track record with new businesses. Its management of ITV Digital, a pay-TV service originally launched in 1998, was a disaster.

ITV argues that there are real benefits to gain from promoting Friends Reunited on its TV channels

and vice versa. “We will take the dating site from number five now to number one in 12 months,” says Mr Henry. It will use the local strength of Friends Reunited to help its new local broadband television business, which aims to take classified advertising revenue away from newspapers. The mediums may be different, but the themes of ITV's light-entertainment programming and Friends Reunited are similar, which means creative opportunities. ITV plans to use the dating site, for instance, to inspire a new, modernised “Blind Date”.

This year, Rupert Murdoch's News Corporation has spent $1.2 billion (£700m) buying two online businesses, MySpace.com, a social-networking site, and IGN, a gaming and entertainment site. Viacom, another conglomerate, bought NeoPets.com, a community of virtual-pet owners, and is looking to buy more online. Shareholders in both companies are edgy about getting into something new and unproven. ITV is at least in good company.

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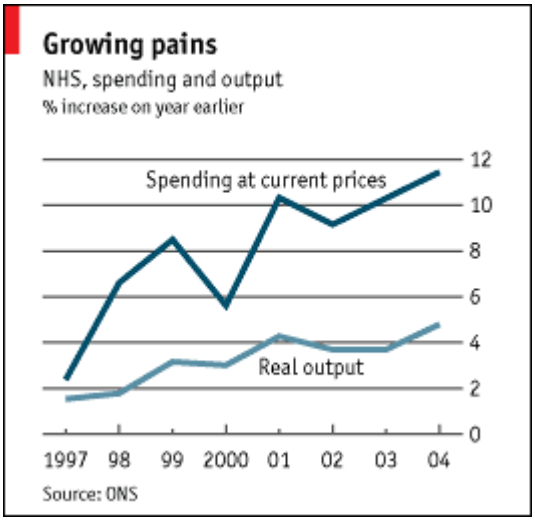
National Health Service

Winter crisis

Dec 8th 2005
From The Economist print edition

Why the NHS is in deficit

Get article background



BACK in the bad old days, the National Health Service used to suffer from frequent winter crises, as an upsurge in illnesses like influenza overwhelmed cash-strapped services. But that was before Labour started throwing money at it. So it is a matter of some bemusement that after nearly seven years of tax-financed largesse, the health service seems to have caught a nasty winter bug.

On current forecasts, the NHS in England will run a deficit of over £600m this financial year. Set against total spending of £76 billion this may seem quite small. But given that the budget has doubled since 1997, it appears astonishing that there should be any shortfall in funding at all.

On December 7th, Sir Nigel Crisp, the chief executive of the NHS, stressed that 70% of health-service trusts have got their finances under control. He said that half of the financial problem was concentrated in 5% of NHS organisations. The NHS was sending in “turnaround teams” to try to help mend the finances of the 50 trusts that are worst affected. The aim is to reduce the overall NHS deficit by the end of the financial year to around £200m.

That may improve the books, but already the financial difficulties are causing delays in operations in the areas affected. Patricia Hewitt, the health secretary, has stressed that patients will get their elective (ie, non-emergency) operations done within the six-month maximum waiting time. But even local cutbacks in activity seem inexcusable when so many are still waiting for treatment. In October there were nearly 800,000 patients on the hospital waiting list.

The financial crisis is tailor-made for those who oppose the government's reforms to the health service. This is what happens, they can argue, when you unleash market forces within the NHS. The reforms, which are progressively linking hospitals' funding to how busy they are, seem to be falling apart already.

Rightly, Sir Nigel denies this is the case. Instead, the financial difficulties show how essential reform is for the health service. In the past, trusts running deficits could expect to be bailed out at the end of the year by transfers from trusts running a surplus. Now they are under much greater pressure to break even, which is exerting a long-overdue financial discipline on poorly performing trusts.

That said, ministers have created a rod for the NHS's back by sanctioning excessively generous

pay deals. New contracts for hospital consultants and family doctors are proving much more expensive than the government expected. Higher pay is swallowing up about half the increase in this year's cash budget, according to John Appleby, an economist at the King's Fund, a health-policy think-tank.

However, this makes it all the more essential that the NHS now uses the extra money it is getting more wisely and efficiently. Another reason to step up the pace of reform is that the flood of taxpayers' money will shortly dwindle to a trickle. The NHS has been hoping that real spending, which has been rising by 7% a year, will increase by 4.4-5.6% in the five years after 2007-08, a projection set out in the review of NHS funding by Sir Derek Wanless in 2002. However, the Treasury is revisiting the Wanless review as part of its spending settlement in 2007. Gordon Brown's plans in his pre-budget report this week for a squeeze on overall public spending from spring 2008 suggest that the NHS will be lucky to receive an increase of even 4.4% a year. Indeed, it could end up getting 3% or less, says Mr Appleby.

Sir Nigel's update this week on how the NHS is doing stresses the need to achieve better value for money. His report says that the reform programme of more choice for patients and more competition are vital to make that a reality. The NHS is now starting to do the right thing, but perilously late in the day for the Labour government.

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Economist.com WORLD EUROPE

Regulation

When less is more

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New ways to cut out old red tape

IT FEELS like a well-rehearsed two-hander. Gordon Brown, the chancellor of the exchequer, pledges to cut the regulatory burden on companies while pointing to the successes he has already achieved. Business leaders, as if reading on in the script, suggest that they have heard it all before and the red tape is getting worse. Exit, not laughing.

In its annual report released this week, the Better Regulation Task Force, set up by the government in 1997 to promote more efficient rule-making, says that the state has taken the first steps towards trimming decrees and form-filling that are costing the economy some £100 billion a year, or 10-12% of GDP.

Sir David Arculus, the chairman of the task-force, reckons that around 70% of regulations help to achieve goals such as better airline safety or cleaner drinking water. The remaining 30%, however, is just reporting and red tape. Better regulation can do away with at least a quarter of this load, freeing around 1% of GDP for more productive investments, he argues.

The task-force claims to have set up tripwires to slow the proliferation of regulation throughout central government. These take the form of impact assessments, extended consultation and assurances signed by ministers that the likely benefits of a new rule are greater than its cost. It says the government has agreed to try to remove an existing rule for each new one that it introduces. Some ministers have also pledged to measure the administrative cost of existing regulation and set targets to reduce it. In short, the government will be too busy regulating its own regulations to emit many more of them.

Another review confirms that there is room for improvement. Philip Hampton, chairman of the Sainsbury supermarket chain, produced a report for the government this year on official inspections and rule enforcement. Looking only at regulators at the national level, Mr Hampton estimated that the 2.6m forms they distribute each year could be cut by a quarter.

Just last week, in a speech to the Confederation of British Industry (CBI), Mr Brown promised that he would act on the Hampton recommendations by scrapping forms for employee share awards at most companies and by simplifying some tax forms. He hopes to trim £300m a year from the costs of compliance.

Yet despite all the promises and preliminary steps, the regulatory load keeps increasing, businessmen say. Take the mortgage industry.

Until last year, mortgage providers looked after themselves. Now the Financial Services Authority (FSA), the statutory body which oversees most of the financial sector, regulates mortgage lenders too. Their rules, and other new burdens, are adding between £500 and £1,000 to the cost of buying a home, estimates the Council of Mortgage Lenders. Fair enough, perhaps, if unsophisticated home-buyers are now better protected against sharks. But lenders complain that

the FSA underestimated by half the cost of setting systems in place to comply with its rules. The FSA has promised to take another look.

In fact, Britain's regulatory burden compares well with that of its peers. Setting up a new business can take 18 days and six bureaucratic steps, says the World Bank in the current version of its “Doing Business” database. That is better than the OECD average of 19.5 days and 6.5 steps.

But doing away with regulation at a stroke is not easy either, as Mr Brown discovered when he promised to do just that in his CBI speech last week. Publicly-quoted companies were due to start including a narrative account of their corporate strategy and prospects in their annual reports from next April. The Financial Reporting Council, the body responsible for new accounting standards, had consulted widely on it. Most large firms had spent time and money in preparation.

Mr Brown's eleventh-hour abolition of the requirement caused groans of protest from some companies, as well as from big investors such as the Association of British Insurers. Even the Institute of Directors, which praised the chancellor's U-turn, lamented that it came so late. Many groaned again this week when he announced that residential property would not be included in self-invested personal pensions (SIPPs) in the next fiscal year, as planned. There is something about this regulation script that he is just not getting.

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Bagehot

Sunny Dave v Roadblock Brown

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Gordon Brown is vulnerable, but less so than the Tories think

THE contrast between Gordon Brown's pre-budget report and, a day later, the accession to the Tory leadership of David Cameron could not have been more marked.

For all the chancellor's bullishness on such occasions, nothing could conceal the reality of forecasts missed by an embarrassingly wide margin and the acknowledgment that Labour's seven fat years of public spending were going to be followed by some distinctly lean ones. Mr Brown's rhetoric may not have changed, but his circumstances have. At the very moment when the succession is in his grasp, his stock appears to many to be on a downward rather than upward trajectory—a fact underlined by the grim expression on many of the faces behind him.

In a packed room at the Royal Academy, where Mr Cameron was duly crowned, there were nothing but bright, smiling faces. When the result was announced there was a roar of triumph—not just for Mr Cameron's feat in beating his rival David Davis by more than two votes to one, but in anticipation of greater conquests to come. And while Mr Brown, in his customary brutal style, attempted to beat his audience into submission, Mr Cameron was all charm and earnest persuasiveness. But it would be as wrong to write Mr Brown off as it would, at this stage, to assume that Mr Cameron is bound to succeed.

The new Tory leader has worked out that the best way to discomfit Tony Blair is to claim him as one of their own, thus detaching him further from his potentially mutinous party. This is a blindingly obvious tactic that none of his predecessors had the nous to employ. During a confident first performance at prime minister's questions, Mr Cameron offered his support to Mr Blair for his

forthcoming education bill and urged him not to appease Labour MPs' antagonism to the bill by watering down the measures to give schools greater independence.

But the attempt by George Osborne, the shadow chancellor and Mr Cameron's closest ally, to cast Mr Brown as the man who wrecked the British economy (see article) was unconvincing. Consumers may be less confident, but, barring external shocks, the chances of a recession between now and the next election seem low. The Tories won't restore their reputation for economic competence by whistling for a slump that doesn't come.

And, for all the shrillness of his attack on Mr Brown this week, both Mr Osborne and Mr Cameron know it, hence their constant refrain that the chancellor has been the “roadblock” to Mr Blair's reforms, happy to squander billions on unreconstructed public services. Right on cue, the newspapers are full of stories about NHS trust hospitals postponing operations and closing wards because they are in financial difficulties.

In the last financial year, according to the King's Fund, a health think-tank, despite an 8% increase in NHS funding, pay and other “cost pressures” meant that the extra money available for improved patient care is only 2.4%. Nearly everyone knows about general-practice doctors who have received huge pay rises while cutting back on their out-of-hours service. Across the public sector, declining productivity has dragged down productivity growth for the economy as a whole.

As it happens, Mr Blair is at least as responsible for this state of affairs as Mr Brown. It was he who panicked in January 2000, demanding that health spending should be quickly raised to the European average and it was he who promised that “investment” would be tightly linked to “reform” without, back then, having much idea what he meant by it.

But it is Mr Brown who is seen as the guiltier of the two. Having been pushed into extra spending by the prime minister, he decided that he would be the one to take the political kudos for it. At the same time, he fell into the trap of making himself seem hostile to reform by curbing the ability of the new foundation hospitals to borrow and signalling his disapproval of applying market disciplines to health care.

Mr Brown thus finds himself vulnerable to the Tory charge that he has undermined a previously strong fiscal position to feed an ungrateful and profligate public sector. But Mr Cameron would be foolish to think he has Mr Brown bang to rights.

In the first place, the tight new spending plans confirmed by the chancellor this week will make it difficult for the Tories to lay claim to a lower figure. Mr Brown will relish itemising in blood-curdling detail every “cut” he attributes to them.

Showing signs of improvement

But much more importantly, for all the current gloom about the NHS, there's a real possibility that by the time of the next election it will be in dramatically better shape. The reason is that the real impact of Mr Blair's reforms, in particular the new independent treatment centres (ITCs), is only about to be felt. Next year, private-sector contractors will boost the NHS's elective-surgery capacity by up to 5%, and by the end of 2007 that will rise to 10%.

Some primary care trust chief executives report that the willingness of consultants to work more efficiently and thus cut waiting lists sometimes even precedes the arrival of a nearby ITC. Thanks to so-called “intelligent booking” (for example, doing left eye cataract procedures one week, right eyes the next) and other innovations previously undreamed of in the NHS, the cost of “spot

purchasing” an operation can be 40% lower in ITCs than in neighbouring trust hospitals. Only a relatively small number may be needed to bring some much-needed “competitive tension” to the system.

However sceptical the chancellor may once have been of market-driven reforms, Mr Cameron is kidding himself if he thinks that Mr Brown won't claim the credit for them if they work. To their cost, Tory leaders serially underestimated Mr Blair. Mr Brown has flaws, but Mr Cameron should not make the same mistake about a wily and dangerous opponent.

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Economist.com PRINT EDITION

Supersonic business jets

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From Economist.com

A discussion with Tom Standage, Technology Editor of *The Economist*

"The demise of Concorde won't be the end of the supersonic dream. There are two different camps that are now looking at new supersonic aircraft that have new designs on the drawing board."

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Economist.com PRINT EDITION TECHNOLOGY QUARTERLY

Breaking the sound barrier—again

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From The Economist print edition

Transport: A new breed of supersonic business jets, without Concorde's drawbacks, could soon be taking to the skies

IMAGINE being able to cross the Atlantic in less than three and a half hours. You could fly from London to New York for a meeting and still be home in time for dinner. It used to be possible, before the demise of Concorde, of course. But while Concorde has passed into history, the dream of supersonic travel is alive and well. Several firms are now racing to develop a new breed of supersonic passenger aircraft. These planes will use new technology to ensure that they are quieter, more efficient and capable of turning a profit—something Concorde struggled to do throughout its 27-year lifespan. The new aircraft will differ in another way, too. To start with, at least, they will probably not be airliners, but much smaller business jets.

That is because business-jet users are most likely to value time over money, says Preston Henne of Gulfstream Aerospace, a big business-jet manufacturer based in Savannah, Georgia. Supersonic business jets make sense from an engineering and financial point of view, too. “Historically, if you go back and look at how today's aeroplane systems evolved, it started with smaller aircraft and affluent customers,” says Mr Henne. Concorde was an exception to this rule, which may explain why it failed.

That said, those rushing to build supersonic business jets fall into two camps, taking two very different approaches. Those in the first camp, which includes Gulfstream, are aiming to overcome what was arguably Concorde's biggest drawback: the sonic boom it created during supersonic flight. The resulting noise pollution ultimately led to international regulations banning commercial aircraft from flying supersonic over land. This in turn severely restricted the flight paths Concorde

could follow, since it was so inefficient at subsonic speeds that routes had to be designed to minimise the distance flown over land. Gulfstream plans to tackle this problem head on, by getting rid of the sonic boom. It sounds ambitious, but 40 years of research suggests that it should in fact be possible.

According to a theory developed by two researchers at Cornell University, Richard Seebass and Albert George, the sonic boom can be minimised by altering the shape of the plane to redistribute the shockwaves that cause it. Sonic booms actually consist of two parts, each caused by a shockwave—one at the front of the aircraft and the other at the tail. The shockwaves arise when the plane is travelling faster than the sound waves it is producing. Unable to dissipate, these sound waves build up instead and form a shockwave. Dr Seebass's theory suggested that shaping the fuselage appropriately could reduce the boom by causing the sound waves to spread out, or better still by causing them to interfere with each other, so that some sound waves cancel others out.

But it was only in 2003 that these theories were finally shown to be correct. The complex shapes required to reduce the boom proved to be very difficult to design by hand. Eventually engineers at America's space agency, NASA, used a supercomputer to simulate the airflow around an F-5 fighter jet and determined how to alter its shape to reduce the sonic boom. In flight tests, the modified F-5—often likened to a “pregnant pelican”—proved that it was indeed possible to reduce the first part of the sonic boom by 25%. Mr Henne believes that Gulfstream can reduce the second part of the boom too, and so drastically reduce the “sonic signature” of a supersonic plane passing overhead. Supersonic flight over land might then become a possibility.

Of course, it is not quite that simple. It will be necessary to persuade regulators—the Federal Aviation Administration and the International Civil Aviation Organisation (ICAO)—to reconsider the current ban. Furthermore, to make the new aircraft commercially viable, there would also have to be changes in the way that supersonic aircraft are handled when coming in to land at airports. There is little point in having a supersonic aircraft if it gets put into a holding pattern for an hour when it arrives at its destination. These are ambitious goals which might seem foolhardy if Gulfstream were the only firm pushing for them, but it is not alone. Also looking for reform is an alliance of ten large aeronautical firms—including Lockheed Martin, Boeing Phantom Works, Raytheon and Rolls-Royce—collectively known as the Supersonic Cruise Industry Alliance (SCIA). This group is working with NASA to build a prototype supersonic aircraft.

But with NASA and SCIA having only just begun their partnership earlier this year, such an aircraft still seems a long way off. Developing the technology will take time, as will lobbying to get the regulations changed. For companies such as Gulfstream or SAI (which is taking a similar approach, in conjunction with Lockheed Martin), there is a danger that other firms could take to the skies first.

That is because those in the second camp are taking a different approach, designing aircraft that fly at supersonic speeds over sea and subsonic speeds over land, but far more efficiently than Concorde once did. Leading the pack is Aerion, based in Reno, Nevada. It hopes to have its supersonic business jets airborne by 2010 or 2011, by which time SCIA is unlikely even to have made a dent in the ICAO regulations.

Aerion's approach is based on the massive improvements in engine and airframe design since Concorde, says Richard Tracy, the company's chief technology officer. Its aircraft will be powered by two Pratt & Whitney engines, normally found on far larger aircraft, that can be reconfigured to optimise their performance for both subsonic and supersonic flight. The aircraft will meet airport noise requirements—Concorde used to make a huge amount of noise on take-off and landing—and will also produce a smaller sonic boom than would normally be expected for a plane of its size. That is an unexpected benefit of putting the engines close to the fuselage and above the wings,

explains Mr Tracy, which means that most of the sonic boom is directed upwards, not down.

So, which camp is right? Perhaps both. Mr Henne admits that the first camp could lose out to rivals that are not dependent on changes to the current rules. But he is adamant that deregulating supersonic flight is the way to go. According to a survey carried out by Gulfstream, only a quarter of all journeys by business jets are over water. This, says Mr Henne, severely limits Aerion's market. Aerion does not dispute that figure, but argues that the 25% of flights that are over water are still a significant market. Indeed, notes Mr Tracy, the market is big enough that Gulfstream has developed long-range subsonic aircraft to service it, so there should be room for supersonics too.

Nor is Aerion alone in this belief. Earlier this year an agreement was signed between the Society of Japanese Aerospace Companies (SJAC) and France's Aerospace Industries Association to develop technologies jointly that could be used to produce supersonic airliners. Like Aerion, this partnership is concentrating on adapting existing technology to produce a supersonic aircraft that can fly subsonic over land, in accordance with existing regulations. The aim is to have an airliner capable of carrying 300 passengers 6,000 nautical miles, equivalent to the distance from Tokyo to New York.

It is still early days for this joint-venture, but it seems to mean business. In October, researchers at Japan's space agency, JAXA, carried out flight tests of a prototype airframe in Woomera, Australia. It achieved speeds in excess of Mach 2.5, or two and a half times the speed of sound. That said, Akira Yanagida, general manager of engineering at SJAC, says that at speeds above Mach 1.6 the economics simply do not work. As a result, none of the runners in the new supersonic race aims to fly faster than Concorde, which used to cruise at Mach 2. Whoever wins the race, this much seems clear: supersonic aircraft are about to stage some sort of a comeback. And this time they will be here to stay.

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Walk this way

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Transport: New moving walkways have been given a speed boost. But will pedestrians in airports and shopping centres be able to cope?

ALONG with vast space cruisers and laser weapons, they are a science-fiction staple described by authors including Robert Heinlein and Isaac Asimov: sleek conveyor belts that whisk passengers around futuristic cities at breakneck speeds. Yet the moving walkways that criss-cross many of today's airports and shopping centres travel at a sober 3kph, which is slower than most people walk. The idea of “travelators” is to accelerate foot traffic by boosting your walking speed, but many users regard moving walkways as an excuse to stop walking altogether. So why not increase the speed of the walkways, as the sci-fi authors suggest?

Engineering firms have tried for decades to realise the high-speed dream, but without much success. Recent history is littered with abandoned attempts by companies such as Fujitec, Boeing and Mitsubishi Heavy Industries. Moving walkways grew out of the mining and bulk transport industries, and the first high-speed version debuted in 1900 at the Exposition Universelle in Paris. But the sloping charms of the equally novel escalator proved more attractive to the flourishing department-store business, and the high-speed moving walkway went into limbo.

So the launch in 2002 of the Trottoir Roulant Rapide in Paris marked a belated revival for the technology. Also called the Gateway, this 185-metre conveyor moves 110,000 people a day through Montparnasse station at about 5kph, or twice the usual speed. Yet it also marks something of a retreat. The original speeds of 9-12kph proved too fast, and a series of injuries led to the brief closure of the walkway soon after it opened. Three years on, orders for more Gateways remain elusive, though CNIM, the French engineering firm behind the project, says it is

negotiating with some potential customers.

Most recent high-speed systems work on the same basic principle: riders step on to a short section of track that slowly accelerates, and then deposits riders on to the high-speed stretch. (Getting part of the track to accelerate can be done in two ways: either by using a series of belts rolling at gradually increasing speeds, or by varying the distance between overlapping sections of track, which allows different parts of a single walkway to move at different speeds.) At the end of the journey, a decelerating section reverses the process. Flashing lights, recorded messages and contrasting colours mark the transition zones.

The need for a new kind of high-speed people mover seems obvious enough in theory. As airports and shopping malls grow ever larger, so too does the time taken to walk from one end to the other. Fast walkways are cheaper and smaller than monorails, and anything that shaves even a few minutes off a dreary commute is bound to find favour with the public. In practice, however, high-speed walkways must grapple with stiletto heels and litigious pedestrians. Another problem is cost: Mitsubishi estimated that its Speedwalk system would cost up to 50% more than a conventional walkway.

But still the engineers keep trying. The latest entry in the field is the TurboTrack, which runs at 7kph and was recently unveiled by ThyssenKrupp, a German industrial conglomerate. Rembert Horstmann, a company spokesman, insists the market is ripe: today's worldwide total of 260,000 moving walkways and escalators is growing by about 22,000 per year, he says, with 15,000 of those in Asia. Walkways and escalators now transport millions of people every year with very few injuries, he notes. ThyssenKrupp regards the new airports being built across the Middle East as a promising market.

Besides, the aversion to risk has arguably gone too far. John Loder, an Australian urban-planning expert, reckons that if conventional escalators were invented today, regulators would not allow them. The high-speed Loderway system he designed in the early 1990s encapsulates the bumpy history of rapid walkways. It enjoyed successful trials at two Australian airports and a two-year run in Melbourne's central railway station, all without incident. But an unlucky confluence of misfortunes, including the Asian economic crisis, caused investors to abandon the project.

Despite the setbacks, Mr Loder is still optimistic about the technology's long-term prospects. People will gradually adapt to faster walkways, he believes. After all, even escalators were initially regarded as terrifying: when Harrods, a London department store, introduced its first escalator in 1898, smelling salts and brandy were provided to revive customers overcome by the experience. But now nobody thinks twice about stepping on to an escalator. So perhaps it is too soon to dismiss the dream of rapid walkways as science fiction.

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Odd bedfellows, striking results

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Health care: Video games, often denounced for their supposed ill effects, actually have a surprising range of therapeutic uses

MICHAEL KELLEHER was turning right in his car on a country road near Rylane, Ireland, five years ago when another car rammed him from behind, thrusting him forward and pushing his foot on to the accelerator pedal. Mr Kelleher's car shot across the road and crumpled into a wall. His wife, the only other person in the vehicle, suffered a chipped vertebra, which has since healed. Mr Kelleher's neck and back pain soon disappeared. What didn't go away was his fear of cars, especially those tailing him. “It was almost to the stage of panic,” he says. He took to pulling over when cars appeared in his rear-view mirror. Ridicule from his children didn't help.

But then last year, a trauma psychiatrist from St Stephen's Hospital in Cork put Mr Kelleher back behind the wheel—not in a real car, but in a video game called “London Racer”. He was coached through a dozen sessions of “graduated exposure” to virtual traffic. “It gave me confidence,” says Mr Kelleher, who now happily drives in motorway fast lanes.

Other examples abound of the therapeutic uses of video games. To regain movement in partially paralysed limbs, for example, stroke victims must spend long hours making repetitive movements. “You get bored,” says Dr Sung You of Hampton University in Virginia. He bought two “immersive” video games, “Snowboarding” and “Sharkbait”, that use a small camera to incorporate the player's image into the game. During physical therapy, stroke victims twist and turn as they tear up the slopes or avoid sharks. “It's just fun,” says Dr You, who found that the greater motivation and focus of gamers meant they recovered more co-ordination than patients in a control group. He reported his results in May in *Stroke*, a journal published by the American Heart Association.

Eric Styffe, a 22-year-old carpenter who lives in Thalwil, Switzerland, used to suffer from severe

attention-deficit disorder (ADD). But then a therapist taught him how to play “neurofeedback” video games designed to sharpen concentration in ADD patients and autistics. With electrodes fixed to his skull, Mr Styffe fixed his mind on game characters, such as a juggler or a Pac-Man-like blob fleeing ghosts in a maze. When his mind wandered, the virtual characters dropped dead. “It felt weird,” says Mr Styffe. But after just two weeks of daily game therapy, he stopped taking Ritalin, a prescription amphetamine. Mr Styffe, who now plays once a month to avoid relapse, says the results are “amazing”.

The American military, which has used video games to train soldiers for some time, is now investigating their therapeutic uses as well. This year the Office of Naval Research, which co-ordinates scientific research for both the Navy and the Marine Corps, allocated $4m among three groups to study video therapies. One of the groups, the Institute for Creative Technologies at the University of Southern California, modified the game “Full Spectrum Warrior” to treat veterans of the Iraq war suffering from post-traumatic stress disorder. Patients, coached by a therapist, recreate disturbing combat situations but have the power to change the outcome by, say, making enemy bombs explode farther away. “Habituation leads to dissipation,” explains Albert Rizzo, the project's leader.

Similarly, an Israeli team at the University of Haifa recently built a disturbingly realistic virtual world of suicide bus-bombings to treat attack survivors. Patients, who wear a head-mounted display, control virtual blasts that incorporate amateur video of real explosions. “The old therapies don't work very well,” says Tamar Weiss, the team's leader.

Phobias may represent the biggest market for video-game and virtual-reality therapy, and clinics are popping up worldwide. Many are writing their own software from scratch. For example, the recently opened Tokyo Cyber Clinic is developing, with help from Waseda University, a virtual Tokyo subway (overcrowded for realism) to treat people who panic when surrounded or touched by others. But most clinics buy games off the shelf—sometimes from firms whose main business is making entertainment games. IREX, a Toronto-based developer of more than 100 video games, has modified a quarter of them for use in health care. (Tweaking games typically entails deleting some competitive elements and adding commands to let patients control exposure to whatever provokes anxiety.)

Some firms design games and virtual environments specifically for health-care applications. Virtually Better, based in Atlanta, Georgia, is arguably the world leader in therapeutic software, with a range of virtual environments (viewed using head-mounted displays) to treat problems as diverse as crack addiction, fear of storms and eating disorders. Poder Volar, a clinic in Buenos Aires, uses a Virtually Better environment called Virtual Airplane to help patients overcome fear of flying, by letting them gradually get used to the process in the safety of an office. “I was paralysed at the mere thought of flying,” says Maureen Scanlan, the owner of a private school who recently completed a course of treatment at Poder Volar. Now she flies regularly.

Therapeutic video games developed at public research centres are sometimes made available for free downloading. The psychology department at the Université de Québec en Outaouais, for example, offers free downloads that modify the popular video games “Max Payne”, “Unreal Tournament” and “Half-Life”, turning them into treatments for phobias including arachnophobia, claustrophobia and fear of heights. (Clinics must first buy the game in question, then modify it by installing the free software.)

Ben Sawyer, organiser of the second annual Games for Health Conference, which took place in Baltimore in September, says the sector is growing dramatically, with especially rapid adoption of “pain-distraction” and “anxiety-reducing” games at hospitals. Dr Anuradha Patel, an anaesthesiologist at the New Jersey Medical School who offers children games before surgery, says the playtime is more effective at calming them down than reassurances from their parents.

Dr Patel says that by diminishing pre-surgery anxiety, video games lower adrenaline levels and blood pressure before anaesthesia, easing the shock of waking and possibly speeding recovery. Similarly, video games have been used since the 1980s to provide “cognitive distraction” for children receiving chemotherapy. In a review article published in July, the *British Medical Journal* noted that a series of studies found that distracted patients suffered less from nausea and required fewer painkillers.

Critics denounce video games for promoting violence and destruction, despite the lack of solid evidence to support such claims. The evidence for gaming's curative and therapeutic benefits, by contrast, is rather more convincing.

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A sight for sore thumbs?

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Communications: Researchers are dreaming up some surprising new ways to enter text into mobile devices more quickly

PEOPLE who send text messages fall into two camps: the 50% or so who, according to surveys, like to have the “predictive” text-entry function on their handset switched on, and the other 50% who prefer the “multi-tap” method of tapping out one letter at a time. The problem with predictive text is that it often guesses the wrong word: invite a friend out for a “pint” (7468 on most keypads), and your phone may suggest “shot” and “riot” before guessing the correct word. The problem with multi-tap is all that tiresome clicking, which is why people often use abbreviations in their txt msgs. Neither method is anywhere near as fast as a conventional keyboard; and a mini-keyboard squeezed on to a small device (such as the BlackBerry and its imitators) is too fiddly for some users. So the search continues for a way to enter text into mobile devices with the speed of a full-sized keyboard, but without its bulk.

Ken Perlin of New York University's Centre for Advanced Technology began working on the problem in 1997. The result was Quikwriting, a stylus-based system that allows the user to enter text without ever lifting the stylus off the screen. Imagine a drawing of a flower, with eight petals around a stamen, on a touch-sensitive screen. Each petal contains up to eight letters, numbers and punctuation marks. Picking a character involves moving the stylus from the stamen into a petal, and then back to the stamen (in some cases via another petal). Each word forms a squiggle, and users soon learn the shapes of common words, as with shorthand.

To start with, Quikwriting attracted a small but devoted following among users of Palm handheld computers. But it has since been licensed by Microsoft, which is developing it (under the name XNav) for use in a range of devices, including mobile phones, television remote controls and its Xbox games consoles. It has done away with the stylus and built several prototypes based on a flower-shaped array of buttons. By running your thumb over the buttons in sequence, you can write text messages or e-mails with one hand.

IBM has also developed a squiggle-writing interface, called ShapeWriter, for use on tablet PCs. It relies on a specially developed on-screen keyboard, in which the letters are laid out in a hexagonal grid. As with Quikwriting, the user drags a stylus over the keyboard to pick out letters. Lifting the stylus indicates the end of a word. Each word has a distinctive squiggle shape (or “sokgraph”, as Shumin Zhai, the developer of the system, calls them), which is identified by pattern-recognition software. As a result, ShapeWriter is very tolerant of straying styluses. In tests, users were able to reach speeds of 80 words per minute. ShapeWriter can be downloaded free from IBM's website, and Dr Zhai says he is now working on a smaller version of the software for use on handheld devices.

While these approaches move away from the old-fashioned “Qwerty” keyboard (which has been around since 1868), Howard Gutowitz of Eatoni Ergonomics is moving towards it. He says there is comfort in the familiar. “Quikwriting is elegant from a conceptual point of view, but I don't think it's mass market,” he says. “If you want something mass market, it's got to be really simple to use.” To this end, Eatoni has created the EQ3 (Eatoni Qwerty 3-column) keypad for mobile phones. While most handsets assign several letters to each number key in an ABC, DEF pattern, EQ3 assigns the letters in a way that looks similar to a Qwerty keyboard, but with a few letters moved around to avoid “collisions”—such as the confusion between “pint” and “riot”. Collisions occur, on average, once every 27 words when using T9, the most widely used predictive-text system. Using EQ3, collisions occur, on average, once every 85 words.

For BlackBerry-type devices, which have a larger number of keys, Eatoni has developed EQ6 (Eatoni Qwerty 6-column). In this scheme, the Qwerty-like arrangement is spread over six columns, so that fewer letters are assigned to each key, further reducing collisions to an average rate of once every 1,800 words. The BlackBerry has ten keys in each row; reducing the number of keys in each row to six, notes Mr Gutowitz, means you can make the keys bigger, or the device smaller. Unfortunately for Eatoni, Research in Motion (RIM), the firm behind the BlackBerry, has developed a similar scheme, which appears on its 7100 series of smartphones. Eatoni has launched a patent-infringement lawsuit against RIM as a result. Evidently the fate of these new text-entry methods depends on more than just ease of use.

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Breaking up is hard to do

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On the graveyard shift

Environment: The low-tech graveyards where ships are picked apart by hand could give way to a greener, more high-tech alternative

PLACES such as Chittagong and Alang have become synonymous with the ship-breaking industry. On beaches in India, Pakistan and Bangladesh, low-wage workers, often young and equipped with little more than crowbars and flashlights, dismantle hundreds of ships every year. Many die from explosions and falls, not to mention long-term disease from exposure to toxic substances. The trade also does grave environmental damage. Hazardous materials such as asbestos, arsenic, mercury and PCBs end up buried in the sand, burned in the open or dumped at sea. Yet the ships also contain tonnes of valuable steel, which is why governments are keen to keep the business alive, despite growing concern.

But now Ecodock, a company based in the Netherlands, wants to bring some ship-breaking back to European shores, where it was widespread until the 1970s, when environmental regulations and rising wages sent it abroad. Ecodock's aim is to build a global network of 30-40 “green” ship-breaking facilities that can safely dispose of the 700-odd large ships decommissioned every year—90% of them in South Asia, China and Turkey.

Using sophisticated cranes, workers would first remove the toxic substances and then take the ships apart, all the while scouring for recyclable parts. Doebren Mulder, Ecodock's founder, says the firm has secured funding for its first facility in Eemshaven, in the Netherlands. The 320-metre dry-dock, big enough to accommodate the largest vessels and even disused drilling platforms, is due to open in early 2007. Ecodock claims that its high-tech system can break down a ship in just over three weeks, as opposed to three months in China or six to eight months in Bangladesh, India or Pakistan.

The venture has regulatory wind in its sails. The European Commission and International Maritime

Organisation have ruled that single-hulled tankers must be taken out of service by 2010—the original deadline of 2015 was brought forward after the *Prestige* oil spill in 2002—which means that at least 1,400 tankers will need to be broken up. The regulations also stipulate that the ships must be dismantled in an environmentally responsible way, which bodes well for Ecodock.

The new approach should also appeal to the shipping industry, for a number of reasons. For a start, it could mean good rather than bad publicity. With today's high fuel costs, sending empty ships across the world for dismantling is needlessly expensive, especially if it can be done closer to home. Building the new facilities will create jobs and mollify politicians in the wake of the *Prestige* and *Erika* oil-spills, and the debacle of the *Tricolor*, which sank in the North Sea in 2002 with 2,862 cars on board, and was subsequently struck by two other vessels.

Furthermore, the shippers will be able to make money from the recycled parts. Typically 95% of a ship's structure is reusable, most of it valuable steel. Brass, cables, refrigerators and plumbing fixtures can also be reused. In contrast to the current business model, where the ship-breakers buy the vessels from the owners outright and then sell the salvaged bits themselves, Ecodock is offering to split the proceeds with shipowners.

Some obstacles remain. The countries where ship-breaking now takes place sorely need that income and steel it generates, and can largely ignore nettlesome safety regulations. And the shipping firms want to keep their fleets in service for as long as possible, which could have a curious side-effect: as the decommissioning deadline approaches, companies will rush to dispose of their tankers at the last moment, overburdening whatever green facilities then exist, and leaving no alternative but to keep sending ships to the graveyard beaches of Asia.

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Market, market, on the wall

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Technology trends: If prediction markets are so good at making forecasts, why not use them to identify emerging technologies?

THE technology industry loves a prediction, and keeps legions of forecasters and futurists in business. But many predictions are wrong, technologies often arrive late, and very few live up to the hype. Why, then, are technology firms not keen users of internal prediction markets? These harness the collective brainpower of employees by giving them virtual trading accounts and virtual money, and letting them buy and sell “shares” in such things as project schedules or next quarter's sales. What are, in effect, elaborate computer games might help tech firms spot trends and make more accurate forecasts. Yet, oddly, hardly anyone is using them in this way.

Hewlett-Packard and Intel pioneered the corporate use of prediction markets, but neither seems to be using them other than experimentally. Todd Proebsting of Microsoft says the software giant has run a dozen or so such markets, and that they quickly and cheaply capture employee sentiment on project deadlines or software quality more accurately than any other measure. Google recently said it is also using internal prediction markets. But such markets are typically used to predict internal matters, rather than to divine broader technology trends—which is, some argue, a missed opportunity. “At the moment, it's a fad that companies are trying out,” grumbles Robin Hanson, an economist at George Mason University who popularised the concept of corporate prediction markets and believes they could be a powerful tool.

But can prediction markets really spot broader industry trends? There have been some attempts to find out. Perhaps the oldest technology-oriented public prediction market is the Foresight Exchange (www.ideosphere.com), which launched in 1994. Ken Kittlitz, one of its co-founders, says it has an accuracy rate of about 70% on technology questions. Among its best calls: it said a computer would beat Garry Kasparov at chess two years before it happened. But it was too bullish on demand for videophones.

Another prediction market, operated by NewsFutures, ran for a while on the website of *Technology Review*. Most of its predictions, says Emile Servan-Schreiber, NewsFutures' boss, concerned financial matters. But the market did make a few accurate predictions about technology trends: it concluded that products based on ultrawideband technology would not be commercially available by July 2004, and correctly forecast the take-up rate for internet telephony.

Even so, says Justin Wolfers, an economist at the Wharton School at the University of Pennsylvania, it is still unclear whether prediction markets really can spot tech trends. That is why he is among those closely watching the latest experiment, being carried out by Yahoo!, a big internet portal and search engine, in conjunction with O'Reilly & Associates, a publisher of technical books and organiser of technology conferences.

In March, the two firms launched the Tech Buzz Game, “a fantasy prediction market for high-tech products, concepts and trends”. Users buy shares in technologies they think will do well; the share price of a technology depends on the frequency with which Yahoo! users perform web searches for it. Yahoo! hopes to use the answers to predict search trends that will be popular in future, so that

it can sell advertising against them. O'Reilly wants an inside track on hot topics for future books and conferences. In the spring, the market identified “Ruby on Rails”, a programming environment, and Flickr, a photo-sharing site, as hot picks. But the game has not yet been around long enough to assess its track record for longer-term prediction, says David Pennock, a senior researcher at Yahoo!

The most important thing about the Tech Buzz Game, says Mr Wolfers, may be that people are actually playing it, because it is so well designed. Encouraging employees to use prediction markets has always been a challenge. Mr Proebsting says he believes it is just a matter of time before Microsoft starts using predictive markets to predict external as well as internal events. Perhaps he could use the technology to estimate when.

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Fingerprints for car parts

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Security: People have fingerprints, but objects do not—unless you spray them on in the form of thousands of tiny microdots, that is

WHILE “smart dust” remains a technological fantasy, a distant cousin is already being used to protect valuable items around the world. The “microdots” produced by DataDot Technology, an Australian firm, are tiny polyester particles, just one millimetre wide, that can be sprayed on to valuable items such as car parts. Under ultraviolet light and a magnifying glass, any one of these thousands of dots can reveal the host vehicle's unique identity number. Of course, a car thief could try to scrape off the microdots, but their sheer number makes that impractical; a single dot is enough to identify a stolen component. Warning stickers enhance the dots' deterrent effect.

And it seems to be working: according to a study published by Australia's National Motor Vehicle Theft Reduction Council in 2004, thefts of BMWs are down more than 60% since the carmaker began using microdots in 2001; thefts of Subaru vehicles fell by more than 90%. Ford, Porsche, Audi and Lotus are also using the technique in Australia. And the idea is spreading. Mitsubishi and Volkswagen have been experimenting with the dots in Britain and Taiwan respectively, and Nissan uses them in America on some of its most expensive headlights. Microdots can also safeguard laptops, boats, farming equipment—almost anything, in fact. In 2004, police in Florida caught a corrupt parking-meter official using planted microdotted coins.

Though the idea of microdotting dates from the 1940s, it became economically viable only with the advent of laser etching in the 1990s. Las Vegas casinos were among the first to use the dots, in an effort to root out fake gambling chips. Australian investors then bought the rights, motivated in part by Australia's high rate of car crime. Even though steering-wheel locks, satellite tracking and immobilisers had helped to reduce car thefts, trade in stolen parts remained a problem. The use of microdots is changing that.

Creating the dots themselves is fairly straightforward. The hard part, says Ian Allen, DataDot's boss, has been convincing carmakers and insurance companies to adopt them. After all, the idea of spraying a car with dots sounds strange—but it is not as dotty as it seems.

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The end is virtually nigh

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Gaming: How the inhabitants of an online game are responding to their impending destruction and the end of their virtual world

Darkness falls over Dereth

THE end of the world is a favourite theme of storytellers and prophets, and with good reason: accounts of how a small band of intrepid adventurers tries to avert destruction, or sets out for a new and better world, make for exciting tales. But there will be no such stories for the inhabitants of Dereth, whose time will run out on December 30th. Dereth is the virtual world associated with “Asheron's Call 2”, an online game. It has not attracted enough players for its publisher, Turbine Entertainment, to continue to support it. And so Dereth and all of its inhabitants will be destroyed.

“Asheron's Call 2” is an example of a “massively multiplayer online roleplaying game” (MMORPG), a booming genre of games, many of which are set in Tolkeinesque virtual worlds. Players control individual characters which may or may not be human as they fight monsters, complete quests and acquire new equipment, money, skills and special powers. MMORPGs can attract hundreds of thousands of players—the current top dog, “World of Warcraft”, has just passed 4m subscribers—and are particularly popular in Asia. Players pay an upfront fee for the basic game software, which they install on a PC, and then pay a monthly access fee, typically $12-15.

Devoted MMORPG fans spend dozens of hours a month building up their characters, and live what is, in effect, a parallel life in another world. (One MMORPG is even called “Second Life”.) Part of the attraction is that such games are inherently social—as well as chatting with in-game friends, players can team up to accomplish particular missions or defeat powerful monsters. The resulting sense of community and social cohesion means that MMORPGs have loyal populations. The original “Asheron's Call” is still going, as are “EverQuest” and “Ultima Online”, which launched in 1997. But “Asheron's Call 2” failed to achieve critical mass. Its population, once over 50,000, has now fallen below 15,000, making the game economically unviable.

The citizens of Dereth responded to news of their imminent demise in a number of ways. Many simply expressed their sorrow in postings on the game's online discussion board. “How do I tell my nine-year-old that he won't be able to run around Dereth anymore?” lamented one parent. Other players posted bilious attacks on Turbine's management team. “Last one out, please punch Jeff Anderson in the back of the head,” wrote one, referring to Turbine's chief executive. “A big fat middle finger to the execs in charge of this decision,” wrote another.

Some players took the “if we are all going to die, we might as well have some fun” position, and called upon the game's omnipotent overlords to grant them extra powers and abilities for the remainder of their virtual lives, and lower the prices of upgrade items. Turbine responded by making it easier to advance to higher levels. But some players complained that this was unfair on

those who had worked so hard to build up their powers the hard way. “The game may be ending but you still don't deserve stuff handed to you on a silver platter,” grumbled one.

There have been several cases, in other MMORPGs, where players have staged in-game protests to complain about unfair rules or policies. There have even been in-game riots. But there have been no such protests in Dereth. Edward Castronova, a gaming expert at Indiana University and the author of “Synthetic Worlds”, a book about MMORPGs, says this is not surprising. “The only influence players have on the developer is to leave the game,” he says. When thousands of players threaten to leave, developers take notice. But when the game is shutting down anyway, such protests are futile.

What of escaping to another world? Some inhabitants of “Asheron's Call 2” plan to do just that. “I have met so many people, many of whom will continue as life-long friends,” wrote a player called Princess Death Song. She announced a plan to set up a website where she and her friends could decide which other MMORPG to move to, “so that we can continue that journey of friendship”. But it would not be any MMORPG run by Turbine, she declared.

The company could have mounted the equivalent of an evacuation, by moving the population of “Asheron's Call 2” to another world. The original “Asheron's Call” game is still running on its servers, for example. It also has two new and potentially lucrative games under development, based on the “Dungeons and Dragons” and “Lord of the Rings” franchises. Offering the citizens of Dereth characters in these new worlds might have enabled Turbine to retain their goodwill. Instead, they may now decide to steer clear of the company and its new worlds. Whether Turbine's closure of “Asheron's Call 2” will hurt the prospects for its new games will not become apparent until they are launched next year, but it seems unlikely, since both are based on such strong brands.

Another option would have been to throw open the world to the open-source community and let the players run it themselves. Mr Castronova, for one, favoured this approach, but a Turbine spokesman has ruled it out. Instead, Dereth will simply vanish without trace. There will not even be a puff of smoke.

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And the winners are...

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Innovation Awards: Our annual prizes recognise successful innovators in seven categories. Here are this year's winners

OneWorldHealth

A Hale and healthy winner

THIS newspaper was established in 1843 to take part in "a severe contest between intelligence, which presses forward, and an unworthy, timid ignorance obstructing our progress". One of the chief ways in which intelligence presses forward is through innovation, which is now recognised as one of the most important contributors to economic growth. Innovation, in turn, depends on the creative individuals who dream up new ideas and turn them into reality.

The Economist recognises these talented people through our annual Innovation Awards, presented in seven fields: bioscience, computing and communications, energy and the environment, social and economic innovation, business-process innovation, consumer products, and a special "no boundaries" category. The awards were presented at a ceremony in London on November 14th by Bill Emmott, editor-in-chief of *The Economist*. And the winners were:

• Bioscience: **Herbert Boyer**, co-founder and director of Genentech, and **Stanley Cohen**, professor of genetics and medicine at the Stanford University School of Medicine, for developing **recombinant DNA** technology. This is the fundamental innovation that allows genetic material from two sources to be combined, making possible the use of bacteria as drug factories and the genetic engineering of plants and animals. The two men had the idea while eating pastrami and corned-beef sandwiches when attending a conference in Hawaii.

• Computing and communications: **Sergey Brin** and **Larry Page**, co-founders of Google for the commercialisation of **search technology**. Few companies become so integrated into everyday life that their names become verbs, and none has done so as quickly as Google, which combined a superior method of ranking search results with an advertising-based business model to pay the bills. The firm is widely seen as the new Microsoft—which is both an accolade and a warning.

• Energy and the environment: **Stanford Ovshinsky**, president and chief scientist and technologist, Energy Conversion Devices, for developing the **nickel-metal-hydride battery**. This is the battery technology found in hybrid cars, laptop computers and many other devices, and is just one of the many innovations devised by Mr Ovshinsky, a self-taught inventor who pioneered the field of amorphous materials in the 1950s. He is now focusing on solar panels and hydrogen-powered cars.

• Social and economic innovation: **Victoria Hale**, chairman and chief executive, Institute for OneWorld Health, for her work promoting the development of **pharmaceuticals for the developing world**. In 2000, Dr Hale founded the non-profit pharmaceutical company to develop

treatments for “orphan” diseases neglected by traditional drugmakers. OneWorld develops drugs based on donated or royalty-free intellectual property, and is in final-stage testing of a promising new therapy to cure visceral leishmaniasis in India.

• Business-process innovation: **Alpheus Bingham**, chairman, InnoCentive, for his work developing a **web-based problem-solving community**. InnoCentive is an online forum that brings “solution seekers”, who post descriptions of technical problems they need to solve, together with “problem solvers” who try to solve them in order to win an associated bounty. Around $1.6m in potential rewards are currently listed on the innocentive.com website, which is used by over 80,000 researchers.

• Consumer product: **the iPod team** at Apple for the development of the **iPod** digital-music player. When Apple launched the iPod in October 2001, it was widely derided. Who would buy such an expensive device, and why did Apple think it could take on Sony? But Apple had the last laugh. The iPod became an iconic product, and Apple has stayed ahead of its rivals with further innovations such as the iTunes Music Store, the click wheel and video iPod.

• No boundaries: **Fujio Masuoka**, professor, Tohoku University for the invention of **flash memory**. In 1984, Dr Masuoka invented the low-cost, low-power, non-volatile storage technology that can today be found inside mobile phones, music players and many other devices. He is now suing Toshiba, his employer at the time, for $9m, which he believes is his fair share of the $180m the firm has earned from his work.

We extend our congratulations to the winners, and our thanks to the judges: Simon Best, chairman, Ardana Bioscience; Denise Caruso, executive director, the Hybrid Vigor Institute; Martin Cooper, chairman and chief executive, ArrayComm; Larry Downes, professor, School of Information Management and Systems, University of California, Berkeley; Shereen El Feki, bioscience correspondent, *The Economist*; Rodney Ferguson, managing director, J.P. Morgan Partners; Daniel Franklin, editorial director, Economist Intelligence Unit; Lisa Gansky, director, Dos Margaritas, co-founder, Ofoto; David Goeddel, vice-president of research, Amgen; François Grey, head of IT communications, CERN; Georges Haour, professor of technology and innovation management, IMD; Vic Hayes, former chair, IEEE 802.11 working group; Leroy Hood, director, Institute for Systems Biology; Louis Monier, former director of advanced technologies, eBay; Shuji Nakamura, director, Centre for Solid State Lighting and Displays, University of California, Santa Barbara; Andrew Odlyzko, professor of mathematics and director, Digital Technology Centre, University of Minnesota; Navi Radjou, vice-president, enterprise applications, Forrester Research; Rinaldo Rinolfi, executive vice-president, Fiat Research; Paul Romer, professor of economics, Graduate School of Business, Stanford University; Paul Saffo, director, Institute for the Future; Tom Standage, technology editor, *The Economist*; Vijay Vaitheeswaran, energy and environment correspondent, *The Economist*; Carl-Jochen Winter, professor of energy and engineering, University of Stuttgart; Muhammad Yunus, managing director, Grameen Bank.

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Economist.com PRINT EDITION TECHNOLOGY QUARTERLY

A matter of definition

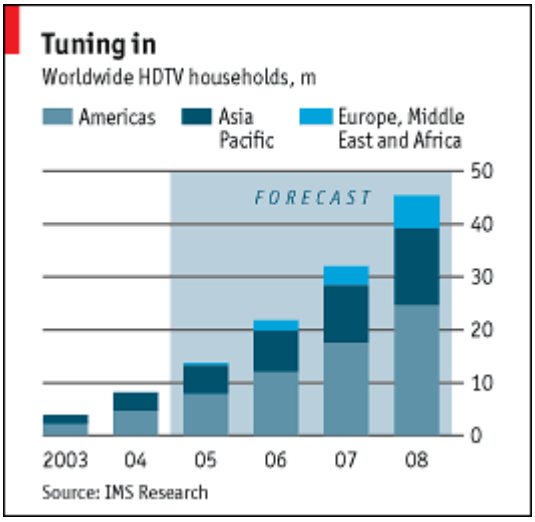
Dec 8th 2005
From The Economist print edition

Consumer electronics: The switch to high-definition (HD) television will gather pace in 2006—but beware the jargon

COLOUR television, which first emerged in America in the mid-1950s, was not an overnight success. There were fights over competing standards, the first colour sets cost a fortune, and for years there were very few colour broadcasts. Only in 1972 did sales of colour sets outstrip black-and-white.

Now a similar transition is under way with the switch to "high-definition" television (HDTV) which, as its name suggests, offers sharper, more detailed pictures. It is still early days: while there are around 1.5 billion televisions on earth, the number of HDTV households grew from around 8m to around 14m during 2005, according to IMS Research, a consultancy. HDTV broadcasts have been available for some time in America and Japan, have recently launched in France and Germany, and will reach Britain and the Netherlands early in 2006. But unlike the switch to colour, the process of switching to HDTV is rather difficult to explain without descending into jargon.

Conventional television is broadcast in an "interlaced" format, in which the screen is divided into several hundred horizontal lines. Half of these lines (the odd-numbered lines) are redrawn, then the even-numbered lines, then the odd-numbered ones again, and so on. The American NTSC system, for example, divides the screen into 480 lines, half of which are updated every 60th of a second (an approach known as 480i). This allows smooth movement to be depicted, while using half as much transmission capacity as updating the whole screen every frame: 60 half-frames per second looks smoother than 30 full frames per second. Most European countries use another interlaced format, called PAL, which divides the screen into 576 lines. The extra lines, together with PAL's more accurate rendition of colour, explain why American TV looks grainy in comparison: 576i looks better than 480i.



HDTV involves increasing the number of lines even further; the two main formats are 1080i and 720p. 1080i is an interlaced format with 1080 lines. 720p increases the number of lines to 720 and improves quality further by doing away with interlacing, updating the whole screen every frame instead—a technique called "progressive scan". This results in much smoother images, particularly of fast-moving subjects. To qualify as an HD set, a television must be capable of

displaying both 1080i and 720p signals, as well as existing formats.

But then things get more confusing. An “HD Ready” set, marked with a special logo in Europe, is one capable of displaying HD signals from external sources. In America, “HD capable” refers to HDTVs with built-in tuners that can decode terrestrial HDTV signals; while a “digital cable ready” HDTV set contains a decoder for HDTV signals delivered via cable.

All of this gobbledegook helps to explain HDTV's dirty little secret: that around 80% of HDTV sets are not receiving HDTV broadcasts. In many cases, this is because consumers are unaware of the distinction; they buy a big new flat-panel HDTV and plug it into their existing cable or satellite tuner. The picture gets bigger, but does not get any sharper. “I have known people who say ‘Look at my new HDTV’, and I have to tell them they are watching regular broadcasts,” says Anna Hunt of IMS. Admittedly, some people are buying HDTVs to use them with “progressive scan”DVD players, which produce a 480p signal. This looks much better than a 480i signal, though it is still not technically HD. But watching television in HD quality requires access to a source of HDTV broadcasting. The trouble is, not much HDTV programming is available: of the hundreds of channels available to most satellite and cable viewers, only a few dozen are available in HD.

The launch during 2006 of two rival HD disc formats, HD-DVD and Blu-ray, and the ability of new games consoles to produce HD signals, could boost adoption. And the industry hopes that the football World Cup, which will be broadcast in HD, will increase awareness of the distinction between HD and conventional broadcasts, particularly in Europe. The idea is that people will watch a World Cup match in HD at a pub or a friend's house, and then decide to upgrade.

Just how quickly HD will take off in Europe is unclear. For one thing, the superiority of HD images over European 576i broadcasts is visible only on 30-inch or larger screens—but Europeans have not embraced big flat-panel TVs in the way Americans have, notes James Healey of Datamonitor, a consultancy. Most European cable networks have not been upgraded to handle HD, and terrestrial HDTV broadcasts can begin in earnest only after 2010 or so, when analogue broadcasts end, freeing up the airwaves for HDTV. In America, cable networks have already been upgraded, and only 15% of households receive terrestrial signals; most rely on cable or satellite, which are better able to deliver HDTV.

Declaring 2006 the “year of HDTV”, then, as some in the industry have, is overdoing it. Several previous years have also been declared the “year of HDTV” too, so scepticism is warranted. More consumer education and more HDTV content are needed; prices will have to fall too. The real tipping point, says Mr Healey, could be the 2008 Olympics or the 2010 World Cup. You will hear a lot about HDTV in 2006, but the transition, as with the switch to colour, will take many years.

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Economist.com PRINT EDITION TECHNOLOGY QUARTERLY

Sunrise for renewable energy?

Dec 8th 2005
From The Economist print edition

Getty Images

Energy: Renewable energy may not appear to be competitive with oil and gas at the moment, but the gap is closing

A SPECTACULAR sea snake has been spotted slithering around Scotland's northern waters. Though it is fiery red in colour, and some 100 metres in length, the writhing beastie has not sent the locals of Orkney running for the hills. That is because it is actually an innovative new device designed to produce electricity by capturing energy from the ocean's waves. Pelamis, manufactured by Ocean Power Delivery, a British firm, is at the vanguard of the next energy revolution. Or at least that is what proponents of renewable energy would have you believe. Orkney is home to the European Union's main marine-energy test centre, and local politicians and academics like to boast that Scotland, ideally suited to wave and wind-power projects, will become “the Saudi Arabia of renewable energy”.

If such claims sound a bit over the top, they are entirely in keeping with the euphoria now sweeping through the renewable-energy sector. Money is pouring in as venture-capital firms, including many not previously interested in renewable energy, throw money at renewables. BP and Royal Dutch/Shell, two oil giants, have big renewables divisions. GE has unveiled “Eco-magination”, an initiative focused on clean energy. High oil prices, environmental concerns, a desire for greater energy security and improved technologies “are combining to create the best investing environment ever for renewable power”, observed Terry Pratt, a credit analyst at Standard & Poor's, in a report published in October. The International Energy Agency (IEA), a quasi-governmental agency not known for excessive greenery, forecasts that over $1 trillion will be invested in non-hydro renewable technologies worldwide by 2030. By then, the IEA predicts, such technologies will triple their share of the world's power generation to 6%. In some regions, such as western Europe and California, the share could top 20%.

Yet such predictions are met with scepticism by those who remember what happened after the oil

shocks of the 1970s. Back then, high oil prices and concerns over scarcity led many firms to bet heavily on alternative-energy technologies. Most of them lost those bets when oil and gas prices fell in the late 1980s. One of the biggest losers was Exxon. Its current boss, Lee Raymond, has vowed not to spend another penny of his shareholders' money on renewables, which he calls “a complete waste of money”.

The chief drawback of renewables is their cost compared with conventional energy sources. The cost of generating electricity from wind turbines is at least 5 cents per kilowatt hour (kWh), for example. Solar or wave power cost at least 18 or 20 cents per kWh. The cost of electricity from conventional sources, in contrast, is typically much lower—as little as 3 to 5 cents per kWh. Barring some dramatic breakthrough, renewable sources cannot, on the face of it, possibly compete.

Changing the rules

But look beyond the headline figures and a different picture emerges. Renewable energy has regulatory, commercial and technological trends on its side, all of which are working to close the cost gap with conventional sources. Taken together, they promise a far more sustainable, market-driven basis for investment in renewables than yesterday's faith in high oil prices—and suggest that renewable energy's cheerleaders could be on to something after all.

First, consider regulatory and policy trends. Critics have long complained that renewables have survived only because of government subsidies. They are right—but every form of energy is subsidised. America's huge Energy Act, signed into law by President Bush in August, hands most of its $80 billion or so of largesse not to wind or solar, but to well-entrenched industries such as oil, coal and nuclear. Germany and Spain handed out cash to their coal industries even as they subsidised windmills.

Yet many governments, striving to reduce carbon emissions, are now embracing policies that promise more enduring and politically palatable support for renewable energy than subsidies: “externalities” pricing. In some countries, especially in Europe, action has come in the form of direct taxes on carbon emissions—which, of course, greatly benefit renewable energy. Japan is phasing out its solar subsidies altogether next year. Tax is a four-letter word in America, so policymakers there have instead adopted a mix of regulations, rather than a carbon tax, to boost clean energy. These include such measures as tax credits and “renewable portfolio standards” that require a certain proportion of energy production within a particular state to come from renewables.

Getty Images

Coming soon to a roof near you?

Second, these policy measures are being accompanied by the arrival of innovative business models built around renewables. A good example is Actus Lend Lease, an American firm, which is developing the world's largest solar-powered residential community in Hawaii to provide housing for American soldiers. “This is a business decision—there is no subsidy,” says Chris Sherwood of Actus. Lenders were worried about the volatility of electricity prices, since Hawaii generates most of its electricity by burning imported oil, and the community's residents will pay a fixed rent, including utility bills, that is set by the army and adjusted only once a year. A sudden spike in the electricity price might have meant that the firm

running the project would have been unable to make its debt repayments. Solar panels, in contrast, produce electricity at a known price for the lifetime of the panels. Reducing the uncertainty over energy costs, says Mr Sherwood, made it possible for the developers to borrow more.

Similarly, Sun Edison, an American start-up backed by Goldman Sachs and BP, has devised a clever new business model that overcomes a number of the real-world obstacles that have hitherto stymied renewable-energy projects. Simply put, it offers big retailers (such as Whole Foods and Staples) long-term, fixed-price electricity contracts in return for being able to set up solar panels on their rooftops. The retailers benefit from stable power prices, but do not have to buy or run the panels themselves; Goldman Sachs, which finances the panels, benefits from the associated tax credits and other offsets; BP sells more solar panels; and solar power has a better chance of taking off. Meanwhile, other ventures are looking to wind energy for a hedge. Several firms are putting together hybrid financial products that combine the output of wind farms in America's mid-west with that of natural gas-fired plants—thus hedging the volatility of both.

“Pricing schemes that favour renewable energy are being made possible by ‘smart’ meters.”

Pricing schemes that favour renewable energy are also being made possible by the arrival of new technologies such as “smart” meters, which allow for hour-by-hour variation in power prices. These make it possible for utilities to charge much more for power during the sweltering midday peak than early in the morning or late at night. Since solar panels produce their greatest power output in the middle of the day—just when prices are at their peak under a variable-pricing regime—Tim Woodward of Nth Power, a venture-capital firm specialising in energy, thinks smart meters with this type of “time of use” or “critical peak” pricing will make solar power far more attractive. “We see a groundswell toward this,” he says. Several American states, led by California, are moving towards variable pricing, and the Energy Act encourages utilities to adopt it. Enel, Italy's national energy company, is rolling out smart meters to 30m customers across the country, and there are plans to make smart meters mandatory across the European Union, whenever a meter is installed or replaced.

Boxing clever

In the mean time, GridPoint, an American firm, is selling a “black box” at retailers such as Home Depot that its boss, Peter Corsell, claims will “solve the last-mile problem of the stupid grid”. Usually, solar panels need a complex tangle of wires, inverters, batteries and other equipment to be installed to make them work. His firm replaces that with a “plug and play” device that also provides backup power. It even uses predictive software and an internet connection to juggle weather forecasts and utility pricing plans to decide when to sell power back on to the grid.

All of this is making renewables more attractive, even without advances in the generating technologies themselves. But those technologies are not standing still either. Wind energy is now a commercially viable business, without subsidies, in a number of places around the world. (The crucial factor is the “wind potential” of the site; even the best sites for wind turbines produce power only 30-40% of the time, and the average across all of Germany's wind turbines, for example, is just 11%.) Of course, government helped the industry get to this point. Denmark, for example, is home to world-class turbine manufacturers, such as NEG Micron and Vestas, thanks to early state aid. And tax credits and other subsidies help wind operators in Germany and elsewhere.

The key to wind's success in becoming commercially viable has been technologies that have allowed turbine size to grow from an average of 10 metres in diameter in the mid-1970s to over 80 metres today. To build and run such monstrous turbines, companies have devised new

composites for the blades, variable-pitch blades that catch the slightest of breezes, variable-speed drive motors and other advances. A doubling of wind speed means about an eight-fold gain in a windmill's energy output, so making windmills taller makes sense, as winds tend to be stronger and more stable higher off the ground. Of course, there are practical limits: make a turbine too big and you cannot deliver it to a field or a windy mountain-top. But offshore, where turbines can be moved by ship, that is not a constraint. Experts expect offshore wind to take off dramatically, especially in Europe, which has both plenty of wind and lots of protesters who object to land-based turbines. Robert Kleiburg of Shell muses that the industry may need to rethink turbine design for offshore environments, however.

The prospects are also good for improvements in solar power. Ever since Bell Labs patented its design for a photovoltaic cell in 1954, crystalline silicon—the same stuff that is used to make computer chips—has been the dominant technology for such cells, thanks to its high reliability and conversion efficiency (at least compared with rival technologies). Silicon-based systems typically convert about 15% of the sun's energy into useful electricity. That may seem low, but since the fuel is free, the efficiency of conversion matters less than the overall cost per kilowatt of power delivered.

Alas, silicon photovoltaic cells are now victims of their own success. The solar industry has sucked up so much crystalline silicon that there is a global shortage, and prices have shot up. But crisis breeds invention. “In the old days, we'd get the garbage after the IT industry got the good stuff,” says Rhone Resch of America's Solar Industries Association. But now half a dozen silicon-wafer plants are going up around the world dedicated solely to providing silicon for solar energy. “This is a watershed for the silicon industry,” says Christopher O'Brien of Sharp Solar.

One firm hoping to capitalise on the silicon shortage is Evergreen Solar. It uses conventional crystalline silicon, but in an unusually frugal fashion. From crucibles of molten silicon, ribbons of the stuff are continuously pulled out. This “string-pulling” uses 30% less silicon than the usual sawing-and-etching method does, with further improvements in sight. But others are betting on a rival technology: thin films. Rather than etch wafers, various firms are creating solar panels on rolls of stainless steel (ECD Ovonics), plate glass (GE's Astropower division), and other materials amenable to continuous manufacturing processes. That means costs can be greatly reduced once full-scale plants are built and perfected, which would compensate for thin films' lower conversion efficiency.

“I'm betting against silicon,” says Arno Penzias, a Nobel-winning scientist who is now with NEA, a venture-capital firm. Instead, he favours a flavour of thin-film solar technology known as “CIGS”—a sandwich of thin layers of copper, indium and gallium selenide pioneered at America's National Renewable Energy Laboratory (NREL). His firm invests in HelioVolt, which is trying to commercialise this technology; the firm claims that it can already achieve efficiencies close to those of silicon in the laboratory but using just one-hundredth the material. Billy Stanbery, HelioVolt's boss, thinks this technology could allow solar panels to be built into roofing materials, rather than installed on top. Shell's solar division, which is developing a thin film similar to CIGS, thinks it could reduce the cost of solar panels by more than 50% by 2012.

“Talisman, an oil company, has decided to put up two windmills on top of one of its gas platforms.”

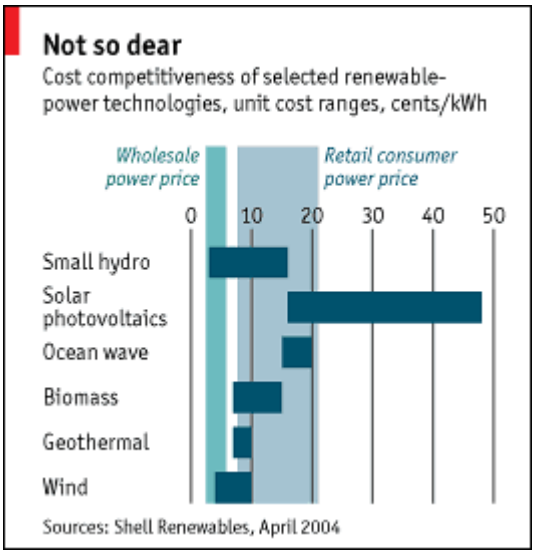
Another promising, but tricky, approach is organic solar panels. Konarka, whose founder won a Nobel prize for pioneering organic solar cells, is leading the charge in this area—but even one insider admits that commercialisation of its optical organic PV cells “is a long way off”. Other researchers are applying nanotechnology and molecular chemistry to solar power, with the aim of mimicking photosynthesis. Most pundits think that is a long way off too. But a paper published by a team from the NREL in May raises a tantalising possibility: it found that tiny nanocrystals known as “quantum dots” could, in theory, make possible solar cells with around 70% efficiency. So the future for solar power could be bright indeed.

Follow the money

But what is most striking is that figures compiled by Shell Renewables in April 2004, when the oil price stood at $40 a barrel—it is currently closer to $60—found that wind turbines and solar panels could close the cost gap with conventional energy sources. Provided they are large enough and are sited in suitable locations, the most efficient modern wind turbines can produce electricity at a wholesale price (the price at which electricity producers buy and sell power on the grid) competitive with non-renewable sources.

Solar panels cannot produce power at such low cost, but comparing their cost-per-kWh with wholesale prices is arguably not the most relevant comparison. That is because in general, solar panels are used not by electricity producers selling power to the grid at wholesale prices, but by consumers who use solar power to supplement or replace power bought from utility companies at retail prices (typically 8 to 20 cents per kWh). So solar power need only match these higher retail prices in order for homeowners and businesses to start to consider it as a viable alternative. And it turns out that the most efficient of today's solar panels do indeed match the retail price of electricity in some parts of the world with high retail prices, such as Japan (which is now phasing out its solar subsidies).

Renewables' growing competitiveness is not, in short, simply the result of sky-high oil prices. And that explains why Wall Street is at last getting interested. Not long ago, America's renewable-energy industry held a finance conference in New York at the Waldorf Astoria hotel. Brian Daly, a financier with the Trust Company of the West, stood up to make a presentation in the bejewelled grand ballroom. He observed: “When I made my first presentations in this industry, there were ten guys with ponytails and I had to flip charts myself.” Now, he observed, the Waldorf ballroom was packed with besuited bankers—and his slides appeared on a high-tech screen.



If you still need persuading that something big and exciting is happening in renewable energy, head back to the frothy waters of the North Sea off Scotland. There, you will find the energy equivalent of beating swords into ploughshares: the planting of windmills on oil platforms. Talisman, an independent oil company, has decided to put up two windmills on top of one of its gas platforms. Building stable platforms accounts for around a third of the cost of offshore wind farms. But the oil and gas industry in the North Sea, now in decline, has plenty of platforms sitting around.

A Talisman official explains that, for the moment, the energy will be used only to power the platform's operations, but in future it may serve as a generating station, and send power ashore. “This will be the greenest platform in the world,” he says. If even hardened oilmen can look to the winds for inspiration, perhaps the time really has come for renewable energy after all.

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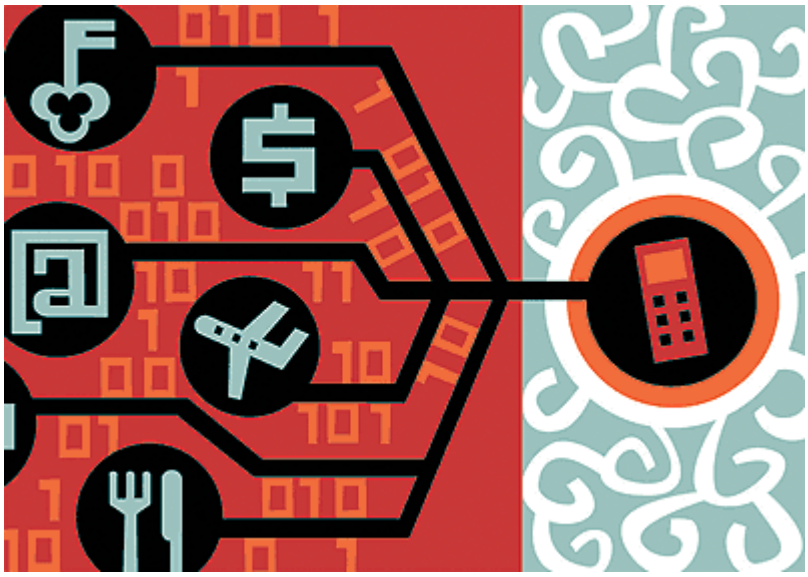
Economist.com PRINT EDITION TECHNOLOGY QUARTERLY

In the very near future

Dec 8th 2005
From The Economist print edition



Communications: “Near-field communication” technology could fuse tickets, key cards and cash with mobile phones

NEW wireless technologies, from Wi-Fi to Bluetooth to 3G, generally promise to be faster, longer-range and more efficient than their predecessors. So a new technology, called “near-field communication” (NFC), is somewhat unusual. Compared with other, better known wireless standards, it operates over very short ranges—measured in mere centimetres—and it transfers data at a comparatively sluggish pace, not much faster than a dial-up modem.

But that does not mean that NFC is lacking in ambition. Quite the contrary. For rather than trying to displace existing wireless technologies, NFC's lofty goal is to supersede even older, more fundamental inventions: bank notes, coins, keys and tickets. It could also spice up advertising posters and make it easier to exchange data between mobile phones and other devices. How can such an apparently feeble technology hope to achieve so much? By bringing order to the growing field of contactless cards, and then, its proponents hope, by marching into other markets in conjunction with that all-conquering digital device, the mobile phone.

To start with, NFC is an attempt to unify the various contactless-card technologies that have been appearing all over the world. Hundreds of transport systems, from Hong Kong to Houston, are issuing tickets on contactless cards that can open turnstiles with the wave of a hand or the touch of a wallet, speeding access for commuters and reducing fraud and administration costs when compared with paper tickets. (Examples include Hong Kong's Octopus cards, London's Oyster cards and Japan's Suica cards.) In America, contactless payment cards and key fobs are used to speed up transactions at fast-food restaurants and petrol stations, and MasterCard recently began distributing PayPass contactless credit cards which can be accepted at 20,000 shops and restaurants. The firm expects to have issued 3m-5m cards by the year's end.

These contactless cards do not need batteries. Instead, when a card is placed close to a reader an electrical current is induced which powers up the card and enables it to exchange short bursts of data with the reader. Such induction happens only over very short distances, which is why close proximity between card and reader is required; some systems advise users to touch the card against the reader to ensure a successful connection, although contact is not actually required.

So far, this is all standard stuff. But now imagine putting a contactless chip and reader into a mobile phone. Since a phone has a screen, a keyboard and a connection to the internet, a number of new and useful things become possible. You could use your phone to see when your contactless train ticket was due to expire, for example, and top it up over the air. Alternatively, your phone could actually take the place of your contactless train ticket, and of other contactless cards, and act as the equivalent of a contactless wallet.

The combination of mobile phones and contactless cards can already be seen working in some countries. In Hong Kong, 50,000 phones with integral Octopus cards have been sold, while Japan's largest mobile operator, NTT DoCoMo, has sold over 4m “wallet phones” that contain a FeliCa contactless chip made by Sony. From next year, these phones will be able to double as Suica cards, since Suica cards are also based on FeliCa chips.

Such compatibility is the exception rather than the rule, however. The contactless card systems in use around the world employ several different and incompatible wireless technologies and software standards. But most of them operate in the same frequency range, around 13.56 MHz, so it is not too difficult to build a device that can talk to all of them.

And that is exactly what an NFC chip does. It is a device capable of acting as both a contactless card and a reader. It is compatible with FeliCa, the standard used in Japan and Hong Kong. It also works with a standard called ISO 14443, which forms the basis of the contactless payment systems used by MasterCard and Visa, and with Philips' Mifare technology, used in London's Oyster cards and in some 200 other ticketing projects around the world. (NFC itself was finalised as an industry standard in 2003.)

This means that an NFC-capable mobile phone can potentially function as an Octopus card in Hong Kong, a Suica ticket in Japan, and an Oyster card in London. Not many people would require such flexibility, admittedly. But a single, overarching global standard should lead to huge economies of scale. Nokia, the world's largest handset-maker and an early backer of NFC along with Sony and Philips, hopes to get the cost of NFC chips below $5, at which point they would be cheap enough for inclusion in even the most basic handsets. And that, in turn, would make possible many other uses.

“NFC could turn your mobile phone into a travel pass, wallet, cinema ticket, or even your door key.”

Cash and carry

For a start, NFC-equipped mobile phones could double as electronic wallets, by taking the place of contactless credit cards. They could also give a much needed boost to electronic cash, an idea that has struggled for years to get off the ground. As Mondex, Visa Cash and a long list of other failed e-cash schemes have demonstrated, getting people to adopt high-tech alternatives to cash is extremely hard. Such schemes present a classic chicken-and-egg problem: consumers will not adopt the technology until merchants do, and vice versa. As a result, e-cash has taken hold only in situations where adoption is mandatory, such as in university or business canteens.

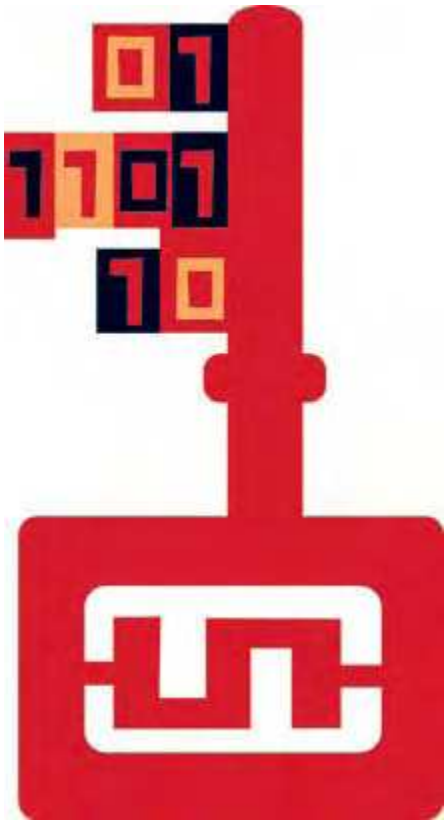
The use of pre-paid credit for transport tickets offers a way out of this conundrum. Once large numbers of people start using contactless cards as tickets, retailers have an incentive to accept

the cards as a means of paying for small items such as newspapers and snacks. This has already happened in Hong Kong, for example, where over 12m Octopus cards are in circulation. The same cards are also used for around 750,000 non-transport purchases per day, worth an average of HK$17 ($2.20) each. Similarly, the 10m Suica cards issued by the East Japan Railway Company can also be used for small purchases, and London's Oyster cards will follow suit next year. NFC-equipped mobile phones could further accelerate the adoption of e-cash, by making it possible to top-up funds over the air.

Near-field opportunities

As well as turning your mobile phone into a travel pass and a wallet, NFC could also allow it to function as a ticket to a cinema showing or sporting event, bought in advance via a mobile internet connection. And with access to offices, homes and schools increasingly controlled using contactless cards, NFC could enable phones to double as pass cards, too. Yet another possible application is in marketing. Smart posters could include an NFC chip, so that holding a mobile phone against the poster causes a related web page to pop up on the phone's browser. Ringtones or “wallpaper” graphics could even be downloaded straight from the poster. Similar promotional use has already been made of Bluetooth, but using NFC for the same purpose promises to be less fiddly and more secure, since initiating an NFC connection requires close proximity between phone and poster.

Indeed, handset-makers believe NFC could also provide a simple way around another problem: configuring devices to talk to each other over wireless connections. Both Wi-Fi and Bluetooth standards, which are commonly used for this purpose, have a range of several metres, which means that many possible devices could be in range, including those belonging to someone in a neighbouring office or apartment. To ensure a secure connection between two specific devices, users have to go through a fiddly set-up procedure. Since NFC works only over distances of a few centimetres, users could pair NFC devices simply by holding them against each other. Sebastian Nystrom of Nokia likens the process to initiating a conversation by walking up to someone and tapping them on the shoulder, rather than calling to them across a busy room.



Given its relatively slow transmission speed—a maximum of 424 kilobits per second, with early devices limited to half that data rate—NFC would not be very suitable for transferring, say, music files between a mobile phone and a computer. No problem, say NFC advocates: having established a secure pairing with NFC, the two devices can switch to a wireless technology with higher bandwidth, such as Bluetooth or Wi-Fi, which will also allow the devices to stay paired once they move out of direct proximity.

It all sounds great—in theory. But who is backing NFC in practice? An impressive group of companies, as it happens. The NFC Forum, an industry association, was founded by Nokia, Philips and Sony last year, and was joined in February by MasterCard, Matsushita, Microsoft, Motorola, NEC, Samsung, Texas Instruments and Visa. Other members who have joined since include American Express, LG, Intel, Siemens and SonyEricsson.

However, support from one crucial quarter is still muted—the mobile operators. It is not hard to see why their enthusiasm might be lukewarm. Mobile operators have a long backlog of technologies to sell, and many, such as picture messaging and videotelephony, have been coolly received by customers. And Simpay, a European mobile-payment project set up by Orange, T-Mobile, Telefónica and Vodafone, collapsed in June.

The support of the operators is important, since they have to decide which handsets, and hence which features, to make available to their subscribers. The operators might worry that if NFC makes it easier to connect mobile phones to other devices over short-range wireless links, this might discourage subscribers from sending data over the cellular networks. Conversely, as more functions converge on the mobile phone, NFC could offer operators a way to increase revenue and boost customer loyalty by offering new services. “We do see it as a way to boost network traffic,” says Frank Zandee of KPN, a mobile operator based in the Netherlands that is testing NFC as a means of ticketing at a local football club. As mobile phones start to be used for financial transactions and ticket purchases, he says, operators stand to benefit.

Though it has not joined the NFC Forum, NTT DoCoMo regards the convergence of mobile phones and contactless cards as an opportunity to move into financial services. In April, it paid ¥98 billion ($900m) for a 34% stake in Sumitomo Mitsui Card Company, Japan's second-biggest credit-card issuer. By issuing its subscribers with credit cards embedded in their handsets, DoCoMo hopes to boost loyalty and create a new source of revenue. But this idea might not transfer to Europe, since it is predicated on the relatively undeveloped state of Japan's consumer-finance industry, notes Gerhard Fasol of Eurotechnology Japan, a consultancy based in Tokyo.

So if NFC does take off, it will not do so overnight. Coins have been in use since the seventh century BC. People are unlikely to give them up quickly. “It is only now that we are seeing the take-up of e-cash, after six years of operations,” says Brian Chambers, international operations director of Hong Kong's Octopus scheme. “It takes a certain amount of time to change people's attitudes.”

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From “Toy Story” to “Chicken Little”

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Disney

Computer animation: The introduction of digital technology has transformed animated films. But will computer-animated humans ever look realistic on screen?

NOT by chance, the film that first introduced audiences to the story-telling flexibility and entertainment potential of computer animation was about toys. Buzz Lightyear the space-ranger, Woody the cowboy and the other playthings brought to life in Pixar's “Toy Story” (1995) were chosen not simply for their appeal to children—though that did no harm at the box office, of course. Toys were chosen also because they are relatively easy to model and animate on a computer. They do not have complicated features (such as fur or wavy hair), and nobody expects them to make fluid, life-like movements. By the time “Toy Story 2” was released in 1999, however, the characters' motions were smoother, the lighting more realistic, and the humans (including Al, the greedy toy-collecting villain) were also more realistically depicted. Further improvements doubtless await in “Toy Story 3”, which is already on its way. That is because some of the most vivid—and certainly the most entertaining—evidence of the plunging cost and growing power of computers is now to be found on the silver screen.

Computer animation has made enormous progress in a very short time. As recently as 1986, the year Pixar was founded, the use of the technology in films was in its infancy. Directors began by experimenting with special-effects sequences within live-action movies such as “The Abyss” (1989) and “Terminator 2” (1991). There were some short computer-generated (CG) films, but full-length animated films were still mainly hand-drawn and two-dimensional, with sparing use of CG imagery in some sequences, as in Disney's “Beauty and the Beast” (1991) and “Aladdin” (1992). Since then, CG effects have became cheaper and more realistic, and are now commonplace in live-action movies, many of which have come to rely heavily on them (think of the recent “Star Wars” or “Lord of the Rings” trilogies). The same technological progress also made full-length films feasible, and “Toy Story” and its many successors have now become a

popular, profitable and innovative genre.

At the forefront of this revolution in filmmaking is Pixar, which has been responsible for such hits as “Monsters, Inc”, “Finding Nemo” and “The Incredibles”. Next week an exhibition of Pixar's artwork, designs and storyboards opens at the Museum of Modern Art in New York. Pixar's rivals include DreamWorks Animation (makers of “Shrek” and “Madagascar”, among other films) and Blue Sky (makers of “Ice Age” and “Robots”). Tellingly, even Disney, which dominated the field of animated movies in the pre-digital era, has now belatedly embraced the technology. Having previously acted as the distributor for Pixar's films, last month Disney released “Chicken Little”, its first all-CG film developed in-house.

Fewer than a dozen feature-length CG films have come out since “Toy Story”, but several more will be released in 2006 alone, including “Ice Age 2” from Blue Sky, “Cars” from Pixar, “Over the Hedge” and “Flushed Away” from DreamWorks, and “Barnyard” and “Charlotte's Web” from Paramount. It all underscores the rapid rise to respectability of this new medium, an exciting fusion of art and technology. So how does it work?

The making of a monster

Putting a CG feature film together is very different from making a live-action movie using actors. That typically involves a director accumulating a dozen hours of footage (through multiple takes, shooting scenes from different angles, and so on) and then editing it down to a reasonable length. For CG films, the structure is generally fixed from the very beginning. The storyline is worked out, rough character sketches are produced and a detailed, scene-by-scene storyboard is put together. Then the characters' voices are recorded by actors, digital models of the characters are created, and the animators start to bring the characters to life in accordance with the dialogue. “So you see your picture slowly start to move,” says Max Howard, a former Disney animation executive who is now at Exodus Film Group, an independent studio.

Initial pencil-and-paper sketches of the characters are turned into computer models consisting of a wireframe, or mesh, of hundreds of thousands of simple elements. To build a monster, for example, you might start off with a cylinder for each leg and perhaps a sphere for its body, says Jill Ramsay of Alias, a leading maker of animation and modelling software. Each of these elements is made up of tiny polygons, and any number of elements can be moulded together. “You can define any shape you want in 3D,” she says, “but it is a long, slow process.”

Once the wireframe monster has been created, the next stage is to make it move. To do this, the animator identifies the location of its joints and facial features and attaches a set of control points to them. This process, called “rigging”, is akin to attaching strings and a control harness to a wooden puppet, but is far more complex. DreamWorks spent more than a year setting up the rigging for Shrek, the green ogre in the film of the same name. Such an elaborate character, says Ed Leonard, the firm's chief technology officer, typically has hundreds of controls for its rigs, to give it the necessary range of expressions and movements. Rigs can also be much smarter than the strings used to control wooden puppets: they can be configured so that if an animator moves a character's foot, for example, the knee bends in the appropriate manner.

Disney

With the control rigs in place, the animators can start to define the character's movements. There are 24 frames per second in a film, but the character's exact position does not have to be specified

in each one. Instead, the animator positions the limbs of the character at particular points in time and defines how they are to move from one to the next. Animation software then interpolates between these positions to determine the position of each limb in each frame. The result can be viewed right away, in a simplified wireframe view that enables the animators to check their work as they go along.

This process sounds very mechanical. The magic comes from the animator's skill in bringing the character to life. “An animator and an actor are essentially the same kind of talent,” says Alvy Ray Smith, a computer-graphics guru and one of the co-founders of Pixar. “I call it magic, because they convince us that a stack of polygons has emotions and is conscious.” The computer does the actual animation, but does so according to the operator's instructions. This is, notes Dr Smith, not dissimilar to traditional hand-drawn cartoons, in which animators draw every second or third frame, and other artists called “in-betweeners” fill in the frames in between.

But there is more to animated films than walking wireframes, of course. So the next stage is to add colour and texture to the character models. In the case of Shrek, the character model is based on an “anatomically correct” representation (if that is possible for a fictitious monster) of bones, muscles and fat layers. Animators move the bones, and the muscles and fat layers respond in a realistic manner. This determines the shape of the outer layer of skin and clothes. Colour and texture are then defined using pieces of software called “shaders”.

Each shader is a program that defines surface properties such as colour, texture, transparency, bumpiness, shadow colour, and so on. Different shaders can be attached to various parts of a character model to give it specific characteristics, corresponding to skin, hair, fabric and so on. Given a character model and its associated shaders, a specified viewpoint, and the defined position of one or more virtual light sources, it is then possible to “render” a view of the character. The light falling on to each polygon of the character's surface is calculated, and the appropriate shader then determines its colour and texture. After an enormous amount of computational effort, this produces a realistic, textured character. Throw in other characters, objects and background models, all with their associated shaders, and the result is a single movie frame.

For a full-length feature film, the rendering process can take more than a year of round-the-clock calculation using a vast amount of computing power. For “Madagascar”—which depicts the adventures of a zebra, hippo, lion and giraffe transplanted from a zoo into the wild—Mr Leonard says that DreamWorks' computer centre (or “render farm”) ran seven days a week for a year and a half. At Pixar, a movie can also take between one and two years to render, says Dr Smith.

“For a full-length feature film, rendering can take more than a year of round-the-clock calculation using a vast amount of computing power.”

Special sauce

This basic process has not changed much since the days of “Toy Story”, but the technology, both hardware and software, has advanced enormously. More powerful computers mean more elaborate modelling and rendering is possible, producing more realistic images. Animals now have fur and hair; lighting, fire and smoke effects are more subtle and sophisticated; and scenery can be more detailed. The bigger studios have spent years developing proprietary software that creates exactly the effects they want. DreamWorks, for example, has developed its own lighting tool, called LIGHT, and its own rendering tool, called D-Render. Blue Sky's rendering software, called CGI Studio, uses proprietary techniques to render unusually life-like fur and grass. For “Ice Age 2”, which will be released next March, Blue Sky has developed special software, based on the principle of “ray tracing”, to render water and ice effects.

The animator positions the character's limbs; flesh and clothes are overlaid on top; finally, lighting and textures are applied

Ray tracing, a technique that has been around since the dawn of computer graphics, is capable of rendering reflective and translucent objects more realistically than a shader-based approach, but has the drawback of being far more computationally intensive. Where a shader-based approach calculates how light from virtual light sources affects the final colour of each point in the image, ray-tracing works the other way around: virtual rays of light are followed from the viewer back into the model, and are bounced off surfaces until they bounce back into a light source. (The traced rays thus actually travel in the opposite direction to real light rays.) Rays that encounter a partially transparent surface are split into two rays, one of which passes through the surface, while the other is reflected. Taking into account the way in which light bounces off and passes through surfaces in this way entails a lot of complex calculations, but greatly increases the realism of the resulting image.

Increasingly, ray-tracing is used in combination with shading, and various clever tricks have been devised to enable animators to make appropriate use of both approaches without too much of a performance penalty. Ray-tracing features have, for example, been incorporated into Pixar's RenderMan software, a shader-based rendering tool that is used internally, but which Pixar also sells to other companies. RenderMan was used by Disney in the creation of “Chicken Little”, for example, and is widely used in special-effects work.

Faster computers make new tricks possible, but animators seem to have an insatiable appetite for more computer power. “Madagascar” could not have been made three years ago, says Mr Leonard, because modelling the jungle was so computationally intensive. Indeed, the increasing complexity of the films would appear to be slightly outstripping the growing speediness of computers. When “Shrek 2” was made, it required 10m render hours, versus 12.5m for “Madagascar”, made just a year later.

Even so, technological hurdles remain, and there are still several areas with considerable room for improvement. An obvious one is fur. Since most fantasy characters in animated films are animals or monsters, depicting realistic fur is a priority for animation studios. But there are innumerable variations: long, short, thick, thin, wet, dry, matted. Fur must reflect light realistically, and long hair should wave around as the character moves. While there has been much progress in recent years, DreamWorks is promising a “completely new generation of fur” in next year's “Over the Hedge”. Similarly, Carl Ludwig, technology chief of Blue Sky, is particularly proud of the new and improved fur in “Ice Age 2”, which will also come out in 2006.

Some viewers found the characters in “Polar Express” creepy

Then there is water, which is still “really hard” to model, says Ms Ramsay of Alias. It is a substance that reflects light, readily changes its degree of translucence, and must flow, splash and ripple realistically. But that has not stopped studios from plunging ahead, so to speak. “Ice Age” depicted life-like footprints and snow; next year's sequel will be set in a world of melting ice and floods, so characters must swim.

Another challenge is herds of animals, flocks of birds, or schools of fish. Animating large numbers of creatures is a challenge because “you can't hand-animate every single character,” says Mr Leonard. Instead, a small number of characters are typically created and animated, and are then duplicated many times. The latest approach, says Mr Leonard, is to give groups of characters behavioural characteristics, and animate them as a coherent group, rather than separate individuals.

But by far the greatest challenge lies in the more realistic depiction of people. “The problem with human beings is the face,” says Mr Ludwig. So familiar are audiences with subtle human movements and expressions, he says, that “the minute something is not there, we know it, and it feels dead or strange.” That is not the case for fish or monsters. “Polar Express”, which combined computer animation with motion-capture of performances from human actors, was one of the most ambitious attempts to render realistic humans. But many viewers found the results eerie or sinister.

Pixar has always chosen to depict people in a cartoon-like way in its films, notably “The Incredibles”, rather than striving for realism. DreamWorks, in contrast, has taken a more realistic approach with the human characters in the “Shrek” films. There has been progress in the modelling of the way human skin scatters light, and hair is becoming more lifelike too. But such improvements, says Ms Ramsay, are “still costly” computationally.

Imaginary animal, realistic fur

Besides, ought the industry's objective really be making perfectly realistic humans—to have, as Mr Howard says, “Fred Astaire dancing again”? Despite DreamWorks' more realistic approach, Mr Leonard rejects any suggestion that total realism is the goal. Instead, he says, computer-generated characters, such as Princess Fiona in the “Shrek” films, need only be real enough to express recognisable emotions. “If you want to do perfectly real humans, then I suggest you get a camera and go shoot actors, because it's a lot cheaper,” he says. After all, given animation technology's ability to depict almost anything that can be imagined, why should it limit itself to mere realism?

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Medicine's new central bankers

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Health care: Biobanks, which link tissue samples to patient data, are all the rage—but have drawbacks as well as benefits

WHAT do you get when you link a repository of tissue and DNA samples to a database of personal medical information and test results? A biobank. The combination is potent, because it can reveal things that tissue samples or medical records alone cannot. Drug companies and medical researchers can, for example, pick out samples from people with a particular disease, and determine its associated genetic variations to aid drug discovery. Public-health officials and epidemiologists should be able to identify disease patterns in subpopulations and ethnic groups far more quickly than is currently possible. And advocacy groups hope that disease-specific biobanks will accelerate research into disorders such as AIDS and breast cancer.

Nobody knows for sure, but there is a growing consensus that there are economically valuable and scientifically revealing deposits of biological samples and clinical data around the world, just waiting to be tapped. An oft-quoted research paper produced by RAND, a think-tank, in 1999 suggests that some 300m samples obtained through routine patient visits to clinics and hospitals are stored in America, at hundreds of public and private labs. The number and variety of samples that lie elsewhere in the world is unknown, but must be even larger.

The idea of biobanks is not new. But rising health-care costs, drug companies' desire to keep their development pipelines stocked, advances in data-mining technologies and a growing interest in the notion of “personalised” medicine have spurred a growing realisation, in both the health-care and information-technology sectors, that biobanking could be a very good business indeed. The result has been a growing level of activity in the field.

At a conference held in London in October, Britain and Norway announced a plan to co-operate on biobank-based research into the causes of attention-deficit hyperactivity disorder (ADHD), autism, schizophrenia and diabetes. With state-run health-care systems and strong research traditions, both countries are well placed in the field. Norway is collecting blood samples and health data from 200,000 citizens and from 100,000 pregnant women. Britain's project, called UK Biobank, will soon be gathering blood and urine samples and confidential lifestyle data from 500,000 volunteers aged 40-69, in an attempt to untangle the genetic and environmental causes of heart disease, Alzheimer's, diabetes and cancer. Participants will provide new samples and data for up to 30 years, allowing the development and course of different diseases to be tracked.

Similarly, the Karolinska Institute in Stockholm, which already runs one of the world's oldest university-based biobanks, plans to follow 500,000 Swedes for 30 years to gain new insights into depression, cancer and heart disease. There are numerous other examples such as Biobank Japan, the Estonian Genome Project, Singapore Tissue Network, Mexico's INMEGEN, and Quebec's CARTaGENE. Indeed, Sweden, Iceland, Quebec and Japan have been “banking” blood and tissue samples from their citizens for generations without attracting much attention. And all kinds of government institutes and university medical schools around the world have been collecting biological samples and clinical data as a matter of routine. These resources could now turn out to be extremely valuable.

Unanswered questions

But not everyone likes the idea. Bioethicists are quick to point out that the very thing that makes biobanks enticing and powerful to health-care professionals and drug companies makes them equally so to law enforcement, the insurance industry and government officials with a different agenda. This fear is not without foundation. The Swedish government, which created one of the world's first national biobanks in 1975—it now has at least a blood sample from all of its citizens—used a loophole to gain access to the biobank a couple of years ago, in order to track down a killer.

It was not, admittedly, a run-of-the-mill murder case. Anna Lindh, Sweden's popular foreign minister, was murdered in September 2003 at a department store. Although Lindh's murder was captured on closed-circuit television, it was ultimately a DNA match from the murder weapon, a knife, that provided the basis on which the leading suspect, Mijailo Mijailovic, a 25-year-old Swedish Serb, was convicted. The DNA sample used to place Mr Mijailovic at the scene came from the country's national biobank, which—unlike many of the research biobanks now being established—is not anonymous.

Mr Mijailovic's conviction was later overturned on the basis that he suffers from a psychiatric disorder, but damage to the claim of confidentiality made by Sweden's biobank was done nevertheless. “This must never happen again,” says Jan-Eric Litton of the Karolinska Institute biobank. “This is not and should not be the purpose of a biobank—the only purpose, and it is my great hope that all nations abide by and clarify this, is to understand disease and find ways to address it in all of its forms. Biobanks are the future—they are a unique opportunity if we manage them correctly.”

But while limiting the use of biobanks to medical research sounds like a simple solution, grey areas abound. In January, Swedish lawmakers temporarily changed the law to allow access to the biobank in order to identify bodies of Swedish citizens killed in the Asian tsunami. That is arguably a non-medical use, but one that is harder to argue against: the samples were used to identify children, for whom dental records did not exist. As a biobank meeting held in Stockholm last May, and a follow-up

“While bioethical and regulatory worries about biobanks abound, lack of agreement on standards

meeting in Washington, DC, last month made clear, there is still no agreement about how to keep probing officials citing national security or other serious concerns out of the biobank vaults.

could prove to be a more immediate impediment."

Equally difficult to resolve is the matter of consent. Speaking in Stockholm, Wolfgang Patsch of Paracelsus Private Medical University and Landeskliniken in Salzburg, and Chia Lin Wei of the Genome Institute of Singapore, highlighted the importance of creating a new consent model, engaging the public in dialogue about the promise and perils of biobanks, and ensuring accountability, transparency and confidentiality. Britain's UK Biobank, for example, will encrypt the identity of donors, so that only selected users will be able to link samples and data to particular individuals. Total anonymity raises problems of its own: it precludes the possibility of informing donors or their relatives if donated material reveals them to be at risk from a specific disease.

The question of confidentiality is bound up with another conundrum: who is going to pay for biobanks? The answer is unclear. One approach would be to make information freely available to academic and government researchers, but to charge drug companies and other commercial interests which stand to profit from their use of the data. That could make biobanks self-sustaining, or even profitable; it has even been suggested that donors should be given a share of the proceeds. But purists insist that biobanks should remain strictly non-commercial entities. The Genome Institute of Singapore forbids any commercialisation of its biobank data, for example, though so far it is the exception to the rule.

Further complicating matters is the question of scope. Should biobanks contain samples of blood, urine, tissues or stem cells? Should data from clinical trials be included? And how far back in time should biobank collections go—to school, or even to new-born check-ups? Another challenge is that of quality control. It is vital that the millions of samples in a biobank are collected in a consistent and uniform way to avoid contamination or mislabelling of samples. As they come under increasing scrutiny from regulators, drug companies are already questioning the quality of biobank data. Before basing critical drug-development decisions on information from biobanks, they will need a high degree of confidence in its reliability.

Money in the bank?

All of these objections must be weighed against biobanks' great potential to help in the development of new treatments, however. It is widely assumed that, in future, drug treatments will be tailored to each patient's unique genetic blueprint, so that two people with the same disease might be treated in very different ways. The hope is that personalised medicine could both make treatment more effective and reduce side-effects. Data in biobanks will play a crucial part in realising this vision, by revealing insights into disease progression and responses to standard therapies. That, in turn, will reduce the time needed to develop new personalised diagnostic tests and treatments.

According to Mike Svinte, head of IBM's information-based medicine initiative, “biobanking is becoming an essential part of the transformation to a personalised model of medicine.” IBM certainly hopes so, as a proponent and backer of biobank initiatives around the world. Biobanks, with their mountains of associated data, require huge amounts of storage and processing power, and represent a daunting, yet potentially lucrative new market for the computer giant. Other technology companies such as Oracle, GE Healthcare and McKesson also stand to benefit if biobanks start to become widely adopted. There has already been much discussion about the standards and protocols that will be used to store biobank data, but these are still early days. When the debate begins in a more public fashion it will surely be heated.

Indeed, while bioethical and regulatory worries about biobanks abound, the lack of agreement on standards and procedures could turn out to be a more immediate impediment to their adoption and use. Martin Ferguson, senior vice-president for bioinformatics at Ardais Corporation, a firm that helps researchers assemble and maintain large repositories of clinical samples, argues that most of the technologies and standards that are needed already exist. “The main hurdle remains getting enough biobanks to actually agree upon and adopt a common set of systems for deployment, and thus become a sort of ‘nucleation point' for a functioning biospecimen collection system,” he says.

In other words, if the full potential of biobanks is to be met, there will have to be a standard way for researchers, whether in the public or private sector, to order and access samples and data from biobanks—just as the internet's common standards facilitated the free flow of information across digital networks, and made available previously untapped data. Only then will it be possible to fully exploit the mountains of samples, and reams of data, that are currently locked up in the world's hospitals, clinics, and laboratories.

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Threads that think

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Materials: The incorporation of sensors and controls into clothing is the first step towards a new realm of "smart fabrics"

IT COULD give the term "power suit" a whole new meaning. Getting dressed a few years from now, you may find yourself putting on more than mere fabric. Your clothes may by then sport electronic sensors and tiny computers. As you walk out of the door, you will be not just fashionably attired, but digitally enhanced—a living, breathing node on the internet. This prospect will delight some people and horrify others. But it could actually happen, if the field known variously as smart fabrics, electronic textiles or "washable computing" can achieve the breakthrough its proponents believe is just around the corner.

As recently as five years ago the idea of clothing, furniture and upholstery that combined fabric with electronics was a fantasy. Yet today the first examples of the technology are on sale, with more advanced products on the way. Current products are aimed at early adopters, but both hopeful start-ups and big firms such as Nike, DuPont and Philips are searching for an application that will carry the technology into the mainstream.

Smart fabrics look and feel like ordinary textiles, but can do extraordinary things: generate heat, monitor vital signs, act as switches or sensors, and even change colour. With so much fabric woven into daily life, proponents of smart fabrics see them as a natural way to increase the pervasiveness of today's gadgets and add snippets of intelligence to everyday items. Computing power is already being incorporated into cars, household appliances and entertainment systems, notes Stacey Burr, the boss of Textronics, a spin-off from DuPont based in Wilmington, Delaware, that is developing electronic textiles and clothing. So fabric, she argues, is a natural next step. "About 70% of the materials that people come in contact with are fabrics," she says. "We want to create fabrics that warm, illuminate, conduct, sense and respond." Smart fabrics will be particularly useful in the fields of medicine, sports, communications and personal security, Ms Burr predicts.

Material benefits

She is not alone in her enthusiasm. “There is a really big market,” says John Collins of Eleksen, a British start-up that sells sensors based on smart fabrics that can be incorporated into clothing, accessories and furniture. Eleksen has so far sold 70,000 units, but already has firm orders for 600,000 units in 2006, and expects sales to rise tenfold again in 2007.

Smart fabrics can take many forms. The most basic kind is electrically conductive, such as Textronics' “textro-yarn”, a slightly elastic material that resembles ordinary fabric. Because it conducts electricity, it can be used for heating (by passing a current through the fabric), as a radio antenna, for electromagnetic shielding, to provide power to other devices embedded into clothing, and even to make electrodes, for example to monitor vital signs. The company has just launched a sports bra that monitors the wearer's heart-rate and calorie consumption, and displays them on a wristwatch-sized screen.

Another of Textronics' smart materials is “textro-polymer”. Its fibres have the useful property that their resistance changes when they are stretched. This can be used to detect bending, stretching or tugging, which can in turn reveal whether the wearer of a smart garment is moving or stationary, or whether a particular car seat or bed is occupied. In September, Textronics announced a deal with Konarka, a pioneer in flexible solar panels, with a view to making jackets that can recharge mobile phones and other devices.

International Fashion Machines (IFM), a firm based in Seattle, has just launched a range of light switches based on conductive yarns. Squeezing the fuzzy, pom-pom-shaped blob of material changes the amount of current flowing through it. This difference is detected by a control circuit that then turns lights on or off accordingly. Maggie Orth, IFM's founder, hopes these playful switches will find use in children's playrooms and designer hotels.

The smart fabric made by Eleksen, called ElekTex, acts as a more elaborate touch sensor. It consists of three layers: a top and bottom layer of conductive material, and a middle layer that conducts electricity when it is compressed. Voltage gradients are applied across the top and bottom layers, at right angles to each other. When the fabric is pressed, current flows through the middle layer. By measuring the change in voltage across the top and bottom layers, it is possible to determine where (and roughly how hard) the fabric is being pressed. This means that sliding and tracing gestures, as well as individual presses, can be detected.

Eleksen claims that the fabric can survive being washed, crumpled, punctured and even driven over. It has already been used to make roll-up fabric keyboards for handheld computers, to control a heated jacket made by Innovative Sports, and to incorporate iPod controls into ski jackets made by Spyder, Kenpo and Westcomb. The iPod is popped into a special pocket and plugged into a control wire, and it can then be controlled using fabric sensors in the jacket's cuff or on its sleeve. Buttons start and stop playback and select tracks, and stroking a strip adjusts the volume.

Fancy fabrics, clever clothes

In France, a cinema has experimented with using ElekTex to count the number of occupied seats; another proposed use is to incorporate television controls directly into the fabric of sofas. “The real value in our stuff is being able to keep the interface as soft as the thing it's going into,” says Miles Jordan of Eleksen. The company has also devised a second form of smart fabric, again made up of several layers, which functions as a moisture sensor. The top two layers allow only a small proportion of incident moisture to reach the third, bottom layer, which contains a matrix of conductive fibres. The amount of moisture can be determined by measuring variations in the resistance of this layer. This smart fabric can be used for what Eleksen delicately calls “incontinence detection” in medicine, and to detect moisture in buildings.

As well as acting as sensors and switches that gather information, smart fabrics can also function as output devices. One approach is that taken by Luminex, the result of a collaboration between Caen, an Italian electronics firm, and Stabio, a Swiss textiles company. Luminex is a fabric with fibre-optic strands woven into it, which are then illuminated using light-emitting diodes powered by a small battery pack. Luminex has already been incorporated into glowing clothes, safety garments, handbags and furniture, and even a wedding dress.

Electric Plaid, devised by IFM, takes a different approach. Rather than emitting light directly, it contains stainless-steel yarns coated with “thermochromic” inks that, as their name suggests, change colour depending on the temperature. Applying a current causes the yarns to heat up, which changes the ink's colour. This makes possible fabrics with slowly changing patterns (see photo on previous page), and even information displays: a wallhanging that changes colour depending on the weather forecast, for example.

A kinder, gentler light switch

As smart as these fabrics are, they still rely on separate control circuitry to detect pressure, motion or moisture, or change their appearance. Smart jackets based on ElekTex, for example,

contain a small control unit to connect the touch sensors on the sleeve to an iPod. Rehmi Post, a researcher at the Centre for Bits and Atoms at the Massachusetts Institute of Technology (MIT), says the real breakthrough will come when the control electronics are not simply housed in clothing, but are woven directly into the fabric. Today's products, he points out, are a halfway-house in which the textiles and electronics are not fully integrated. “They aren't ambitious enough,” he says.

Seamlessly weaving cloth, power and data, Dr Post admits, will be easier said than done. Many of the required technologies exist already, but overcoming problems such as electrical interference, programming and power supplies will not be trivial. “There are a few fundamental problems that have to be solved, but they are solvable,” he says.

Integrating fabrics and electronics more closely will, Mr Collins predicts, make possible phones, music players and other portable devices that are part electronic and part fabric. They will, he says, be smaller, lighter, less power-hungry and more durable than today's devices.

Smart clothing could not only blur the lines between materials and electronics but, if items of clothing start to absorb previously discrete devices, between people and machines. “They will be a kind of second skin—functionality will blend into the background,” says Ms Burr. Perhaps. But in the short term, at least, it seems more likely that smart clothing's appeal will be limited to particular, well-defined situations, such as skiing, policing and emergency rescue. That said, many people now refuse to go out without their mobile phones. The challenge for believers in smart fabrics is to make people feel similarly naked without them.

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Economist.com PRINT EDITION TECHNOLOGY QUARTERLY

The computer will see you now

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From The Economist print edition

Larry Weed has spent his career trying to inject a dose of computing into health care—in the face of fierce opposition

WHEN asked to summarise the significance of Larry Weed's work, Charles Safran, a professor at Harvard Medical School, recalls a story from medical history. In the mid-19th century, the mortality rate from puerperal (or “childbed”) fever at Vienna General Hospital's maternity ward was so high that many women, it is said, preferred to give birth in the street. Then a doctor called Ignaz Semmelweis achieved a dramatic reduction in deaths by insisting that doctors wash their hands between autopsies and obstetrical examinations. But other doctors refused to believe that their own hands transferred disease. Besides, they grumbled, hand-washing was far too time-consuming. Dr Semmelweis was widely ridiculed and eventually fired.

Today, Dr Weed is meeting similar opposition to his proposed reforms, which involve a far greater use of computers by doctors. As in 19th-century Vienna, many doctors today cannot believe that their inability to retain today's vast medical knowledge in their heads is harming patients, as Dr Weed contends. And they speculate that his notion of systematically using software to diagnose and care for patients could be, well, too time-consuming. “He's introduced something you have to call disruptive,” says Dr Safran, who is also chairman of the American Medical Informatics Association. “It doesn't fit into the doctor's workflow.”

But Dr Weed, who turns 82 this month, is the embodiment of indefatigability, devotion and determination. He has spent more than three decades devising software that matches a patient's symptoms and health history against an exhaustive catalogue of computerised medical knowledge. And he's no quack. He earned his medical degree in 1947 from New York's Columbia University and did his residency at Johns Hopkins Hospital in Baltimore. He has taught at a string of renowned medical schools, including that of Yale University in New Haven, Connecticut. In 1969, he changed the basics of health-care delivery with an innovation called the “problem-oriented medical record”. And in 1995, he won the Institute of Medicine's Gustav O. Lienhard Award for outstanding achievement in improving American health care. “He is one of the giants of the last 500 years in medical thinking,” says Don Detmer, a professor at the University of Virginia.

It's not hard to understand why Dr Weed thinks doctors need a dose of technology: there is simply too much new information to absorb and retain. Medline, a medical database, indexed 3,672 articles about adult coronary heart-disease studies in 2004, notes Elizabeth McGlynn, of

RAND Health, part of the RAND think-tank. If a physician took 15 minutes to read each article, it would take 115 eight-hour days to read up on this one clinical area alone. As Dr McGlynn points out, most people need a list to remember five or more items when shopping. How, then, can doctors possibly retain information on some 12,000 known diseases in their heads? Practising medicine without computers is “like trying to send people up on the space shuttle with pencil and paper,” says Charles Burger, a doctor based in Bangor, Maine who has been using Dr Weed's software since the 1980s. “There is no other profession that tries to operate in the fashion we do. We go on hallucinating about what we can do.”

And it is a dangerous hallucination. Preventable medical errors kill between 44,000 and 98,000 people annually in America alone, according to a 1999 study from the Institute of Medicine, a non-governmental organisation in Washington, DC. But the problem is not uniquely American. Dr McGlynn says Canadian, British, Israeli and Scandinavian health-care quality is not much different. “Performance is consistently below the standards that one might hope for,” she says.

A contagious idea

Dr Weed became interested in chemistry and biology as a teenager. He spent the second world war in the navy, and the GI Bill then helped finance his studies at medical school. But he says he cannot remember “in any precise way when or why I decided to be a doctor.” And he is reticent to discuss any personal details that do not relate to his core message: that only by applying technology to health care can rigorous diagnosis and treatment be ensured. Dr Weed does remember that while teaching and doing microbial-genetics research at Yale in the 1950s, he was struck by the stark contrast between his well-ordered one-problem-at-a-time laboratory and the rapid-fire time spent in the hospital, dealing with patients' multiple problems. Plus, the files documenting those problems were a mess. “If you look at the old records, you had stream-of-consciousness notes that almost made it impossible to follow the patient's record,” says Dr Burger.

The experience inspired Dr Weed to devise a new system—the “problem-oriented medical record”, or POMR—in which each problem is itemised and monitored. Dr Weed applied his systematic approach first at East Maine General Hospital in Bangor in the late 1950s, and throughout the 1960s at Case Western Reserve University School of Medicine in Cleveland, Ohio and Cleveland Metropolitan General Hospital. Following a series of lectures, articles and a book on the topic, POMR was adopted in medical institutions, universities and doctors' offices in America, Britain and Japan.

“Long before it was obvious to anyone else, Larry looked at the situation in health care and saw a better way,” says David Brailer, who is America's first National Health Information Technology Co-ordinator. “Saying that POMR was revolutionary almost understates it,” adds Dr Safran. “There's probably no one who has more fundamentally affected the way we organise our work than Larry Weed. He fundamentally changed American medicine.”

But as Dr Weed taught and used the POMR system, he longed to make it even more efficient. Why have secretaries type in all that health-history information if a computer could be made to do the work? In 1969, Dr Weed—who was by now raising four children with his wife, also a doctor—landed a government grant to build a minicomputer version of POMR known as PROMIS, for use on several wards at the Hospital of Vermont in Burlington. As a professor of medicine at the University of Vermont, Dr Weed was however unable to get the university to adopt the computer system. So he and his team left in 1982 to form the Problem-Knowledge Coupler Corporation (PKC) to create a new, PC-based version of the software.

Today, the company employs a staff of 70 in a former textile mill on the Winooski river in Burlington. PKC has built and continually updates

“As governments

software that does a startlingly good job of coupling patients' symptoms with the latest relevant medical information. The PKC software stands apart within the little-known niche of “diagnostic decision-support” software: with other diagnostic aids, doctors generally use software on an as-needed basis, such as during a complex case. But PKC takes patients and health-care providers through a thorough—and documented—question-and-answer routine at each encounter. PKC engages patients, who enter information about symptoms, family medical history and so forth. During or after the medical exam, the health professional enters physical findings and test results. PKC then returns a list of diagnoses and care options to consider, with links to journal articles on which the recommendations are based.

push for health-care automation, resistance to the use of IT could finally crumble.”

Doctors who have used PKC for years tell endless tales of improved office efficiencies, better patient involvement and diagnoses that they might otherwise have missed. A study from 2001 validates their experience, indicating that PKC's systematic approach can improve outcomes in chronic conditions such as diabetes. America's Department of Defence has been impressed enough to build PKC into its own Composite Health Care System, called CHCS II, so that Dr Weed's software helps to look after some 9m people. “PKC has a fairly unique capability to bounce a person's health record up against medical literature,” says Colonel Bart Harmon, the army's chief medical information officer. He adds that PKC's list of potential diagnoses and care options are the opposite of the so-called “cookbook” medicine that many doctors fear will result from automation.

As with POMR, PKC's software has appeal outside America, too. “I would be very pleased if we could get all the general practitioners in Britain to use his software,” says Brian Jarman, a professor emeritus at London's Imperial College School of Medicine and a former president of the British Medical Association. “It's virtually impossible for a doctor these days to remember everything. Computers don't let you forget things.”

Medical complications

And yet the challenges for Dr Weed's software are significant. For starters, there's Dr Weed. Many agree that doctors are overwhelmed with information, yet far fewer agree with Dr Weed's vision of a completely revamped health-care system in which medical schools, as we know them, are dismantled. “The diplomas they grant and the licensing exams the states give could not possibly mean and guarantee what the public thinks they mean,” says Dr Weed. Genius and dedication aside, the good doctor can be as caustic as he is charming, as bombastic as he is brilliant, as scathing as he is skilled. “He doesn't suffer fools gladly,” notes Dr Detmer. “He's a totally consistent personality—this is a delight to those of us who find him inspiring, and tedious to those who wish he would go away.”

Dr Weed says of his critics that “when you don't like the message, it's very easy to criticise the messenger. No one wants you to come to their house and tell them the floor is dirty and the food is lousy.” But even if Dr Weed were a flatterer with a less bitter pill to swallow, there would still be a host of challenges blocking his health-care cure. There is huge resistance to diagnostic-decision support software as a category: doctors remain unconvinced of its benefits and believe it encroaches on their autonomy.

It is not unusual to hear doctors claim that they are far better diagnosticians than a computer could ever be. But this merely indicates that they do not understand that PKC does not purport to make diagnoses (in fact, none of the products in the category does), but rather guides doctors through a more exhaustive examination of all the possibilities than even gifted doctors could manage on their own. So for the time being, PKC is pursuing employers, rather than health-care providers, as potential customers. A firm can, for example, invite its employees to access PKC

online and then share the results with their doctors.

And after decades of toil, things could finally be going Dr Weed's way. Governments and firms are struggling to improve the quality of health care, consumers are becoming more demanding and costs are rising, making health care's curious technophobia—IT spending per employee is lower than in the retail industry, for example—look increasingly unsustainable. As governments push for health-care automation, resistance to the use of IT could finally crumble. “If you look at medical errors, the cost of care, consumer frustration, bioterrorism—they all mean we need to have our health-information systems together,” says Dr Brailer.

“It's impossible to keep up with the avalanche of knowledge,” concludes Neil de Crescenzo, vice-president of global health care at IBM Business Consulting Services in San Francisco. “Therefore, it's important to use a valid diagnostic-decision aid like Larry's.” In short, it is time for doctors to acknowledge the wisdom of washing their hands—this time, in a bit of computing power.

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Steel industry

Forging a new shape

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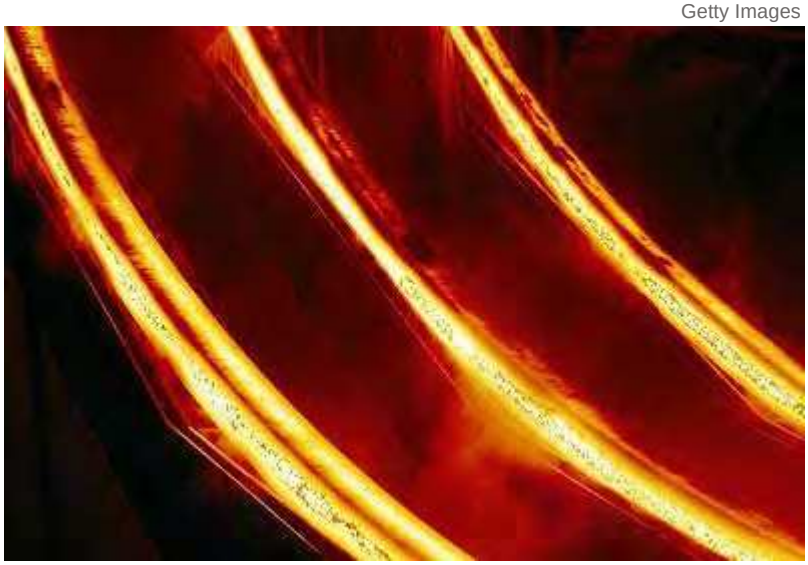
Getty Images



The rise of China is challenging a traditional industry in an unforeseen way

Get article background

AT THE dawn of the 20th century, steel production was an important measure of a country's might. America, Britain and Germany led steel-making until the 1970s, when Japan and South Korea emerged as the most efficient producers in a world reeling from the first oil shock. These days, knowledge industries such as computer software and engineering are more carefully watched. But shifts in the world steel market still reveal a lot about the forces driving the global economy. And the picture they paint is of relentless globalisation combined with an emerging—and unpredictable—threat to western producers from Asia.

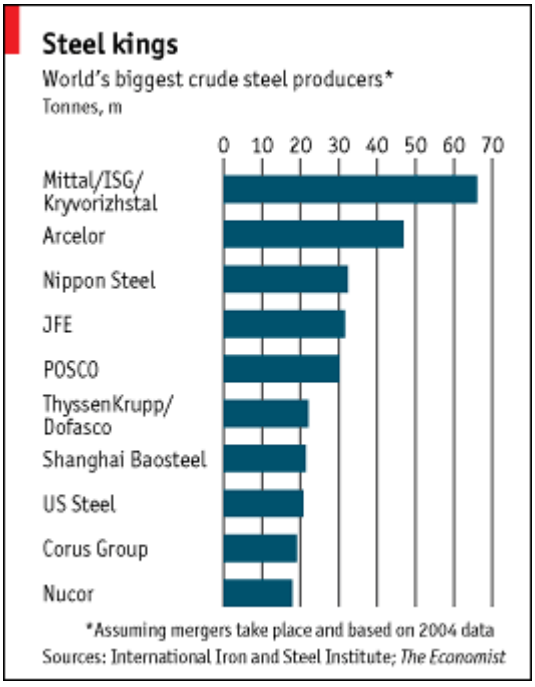
Steel today is dominated by the economic explosion that is China. The country now produces and consumes more than a quarter of world steel output. China's soaring demand lifted the whole industry out of the doldrums in late 2003. At the time, America was imposing import duties to stop meltdown in the mid-west as one American steel company after another toppled into bankruptcy. As China sucked in every available tonne, prices soared. Hot-rolled coil, for instance, the sheet steel for cars and fridges, rose from around $200 a tonne to more than $600. Steel companies saw operating margins rise to a fabulous 30% in some cases, as they made profits of $150-250 per tonne.

This spectacular boom encouraged a succession of mergers that is still underway. The latest twist is a bidding war for Canada's Dofasco between Arcelor, a European multinational that last month launched a hostile takeover, and Germany's ThyssenKrupp which trumped Arcelor with a higher agreed bid, worth €3.5 billion ($4.1 billion). The wave of consolidation started in 2001, when the

top companies in France, Spain and Luxembourg combined to form Arcelor, which became the world's number one. Steel companies had realised they needed to bulk up to get better terms out of suppliers, such as the iron-ore miners.

Arcelor was toppled from its leading position earlier this year when Mittal, the London-based steel empire 88% owned by Lakshmi Mittal and his family, bought America's International Steel Group, itself a recent agglomeration of distressed famous names, such as Bethlehem Steel and LTV. Last month Mittal concluded the purchase of Ukraine's Kryvorizhstal, taking its annual production capacity to over 65m tonnes—well ahead of Arcelor (see table).

Until these deals, steel had largely been a national business, with America's traditional integrated producers serving chiefly the domestic market. The international steel business consisted of export trade, rather than the ownership of assets in several countries. The emergence of Arcelor and Mittal has changed all that, with steel groups that have an increasingly global dimension. Even the formerly insular US Steel, America's biggest domestic producer, now owns plants in eastern Europe that account for a big part of its output.



Both Mr Mittal and Guy Dollé, head of Arcelor, agree that the global industry will come to be dominated by a handful of big groups with production of around 100m tonnes a year. Aditya Mittal, president and chief financial officer of his father's company, told a recent London conference (run by a consultancy, World Steel Dynamics, and *Metal Bulletin*) that one of the emerging majors would be bound to be Chinese, despite the extreme fragmentation of China's industry at the moment.

In 1994 China's steelmaking capacity was only 11% of the world total, now it accounts for roughly 25%. The country's production has tripled since 2000 and consumption has more than doubled—every monthly twitch of demand sends ripples through markets round the world. Last autumn, and again in the spring, China was briefly a net exporter of steel. Coil steel prices slumped from $600 per tonne in March to $440 in early summer. Though prices recovered somewhat during the autumn, the abrupt decline showed China's influence over all markets.

The worry on every steelman's mind is that as the growth in demand for steel slows from its recent hectic rates, the huge increase in Chinese production capacity will be diverted to turning out steel for export. Over-capacity in the domestic market has already driven China's internal steel prices for the benchmark sheet steel down to $300 a tonne, well below the levels in other markets such as America. Exports would seem to offer a tempting way out of this problem.

China's total exports have already leapt 185% in the first half this year, propelling it from eighth position in the league of exporters to third, behind only Japan and Russia—although the volume of exports has declined since the summer. China's production capacity is growing rapidly. It is investing at a rate of $35 billion a year, and has plans for at least four huge new coastal steel plants. Peter Marcus, a steel-industry veteran and managing partner of World Steel Dynamics in New York, says that by 2010 China will have capacity for steel products some 63m tonnes ahead of forecast domestic demand.

Given this prospect, it is little wonder that the same western steelmakers that have done so well

out of rising Chinese demand are now quaking at the prospect of fleetloads of Chinese metal steaming straight into their markets.

Made in China

But the Chinese threat to western steelmakers may not be all it is cracked up to be. China has little iron ore, and even that is of poor quality compared with Asia's other emerging steel giant, India. So it has to buy expensive imports from Australia and Brazil, which will make Chinese steel less competitive.

High energy prices and weak infrastructure for moving steel are further handicaps. And the Chinese steel industry is also fragmented, despite government plans for consolidation. Mr Mittal junior, whose firm already has a minority stake in one Chinese producer and is seeking to snap up other opportunities once consolidation starts, reckons that Chinese producers are far from being truly competitive, with a lot of poor-quality output unfit for many markets.

Mr Marcus points out other reasons why there may be no flood of Chinese exports. The government is wary of causing yet more trade friction in a world awash with Chinese manufactured goods. It has already started to reduce export tax credits for steel, and could even impose duties and quotas. Mr Marcus thinks the government would rather China's railways and ports were busy with other, higher-added-value exports.

There is an historical parallel. Japan's steel exports stopped being a big bogey to Europeans and Americans when the Japanese started in the 1960s to bend steel into boxes called cars and ships. Although few expect China's car industry to make much of an impact internationally for another decade, there are straws in the wind. Exports to Europe and America have started, and trade with small markets in South-East Asia and the Middle East allowed China this year, for the first time, to export more vehicles than it imported. Western fears about China's steel exports may fairly soon give way to another, deeper anxiety.

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The film industry

The lesson of King Kong

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Bigger is better

BACK in 1933 RKO studios shot the original version of King Kong for $670,000—roughly $10m in today's money. Next week a new version of the film, made for $207m, goes on general release around the world. Perhaps only Hollywood would hope to profit by offering a 70-year-old product, refurbished, at 308 times its original cost.

Yet *chutzpah* may have its rewards. Early reviews have verged on the adulatory, after a premiere in New York on Monday, declared to be "King Kong Day" by the mayor. Sponsors are putting King Kong logos on everything from breakfast cereal to credit cards. Big queues at cinemas for King Kong, and for another big-budget film out this month, Walt Disney's "Chronicles of Narnia", could push total American box office takings for 2005 back towards last year's level, after a slide earlier this year.

The titular star of King Kong is a giant ape with a history of taking glamorous women and running up skyscrapers. But the real star of this remake is its New Zealand-born director, Peter Jackson, a compact man with a history of taking glamorous scripts and running up huge profits. His "Lord of the Rings" trilogy earlier this decade cost $270m to make, earned $3 billion in gross revenues around the world and won 17 Oscars.

Cast of thousands

Top five movies, by US box-office gross, with total number of end-credits

1971		2001	
Love Story	51	Harry Potter	820
Little Big Man	100	The Lord of the Rings	1,780
Carnal Knowledge	33	Shrek	491
Aristocats	66	Monsters, Inc	252
Summer of '42	26	Rush Hour 2	421

Source: "Hollywood's Road to Riches", David Waterman, Harvard University Press, 2005

That record helps explain why Universal Pictures, a studio owned jointly by General Electric and Vivendi Universal, was happy to let Mr Jackson pursue his childhood fantasy of remaking King Kong—and all the happier when, as costs rose above the initial $175m budget, Mr Jackson agreed to cover most of the excess himself. The final bill is high, but not scarily so by today's Hollywood standards. The accepted budget for a top-of-the-line blockbuster—last year's "Spider Man 2", for example—has roughly doubled within the past decade, from $100m to $200m.

Industry gossip says that next year's "Superman Returns" could cost even more. This willingness to spend reflects three fat decades for Hollywood since pay-TV and videos emerged. So far at least, despite recurrent film-industry fears about cannibalised markets and video piracy, new media have brought new customers and new revenues, at home and abroad. The studios have

opted, by and large, to reinvest those revenues not in making lots more films, but in making much more expensive ones.

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Economist.com BUSINESS

Wal-Mart

Everyday low blows

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What should Wal-Mart do about those who are bashing it?

Get article background

HOW can Wal-Mart's sales and profits keep rising if its popularity keeps falling? That is the problem facing Lee Scott, the giant retailer's chief executive, as he confronts what he has called "one of the most organised, most sophisticated, most expensive corporate campaigns ever launched against a single company." That campaign is taking a toll, at least on public opinion. A survey released last week by Zogby International found that 38% of Americans have a negative opinion of Wal-Mart, and that 55% have formed a less favourable opinion of it "based on what they have recently seen, heard, or read".

Those results are music to the ears of WakeUpWalMart.com, the outfit that commissioned the Zogby poll, as well as to other powerful critics arrayed against the company. Another group, Wal-Mart Watch, has backing from the United Food and Commercial Workers—which claims 1.4m members—as well as the Teamsters Union, the Sierra Club, the 1.8m-strong Service Employees International Union and some 400 other organisations across the United States. Their lobbying efforts and public campaigning are being trumpeted by a number of political groups such as MoveOn.org, which likes to assail Republicans and capitalism. Many of these groups have been lambasting Wal-Mart for years, claiming that its relentless competitiveness and sheer clout have had a damaging effect on America's workers, small firms and neighbourhoods.

Their attacks have gained momentum, thanks to a leaked company memo—in which an executive laid out plans to rein in health-care costs—and to a documentary, "Wal-Mart: The High Cost of Low Price", that sums up many of the familiar arguments and prejudices against the company. Wal-Mart has long derided its critics, but these efforts appear to have put it on the defensive. The firm recently changed its benefits plans, and from next year will add 70,000 workers to company health-care schemes. In October Mr Scott urged Congress to increase the national minimum wage. For the most part, however, the company is continuing to fight, with Mr Scott in the forefront.

Many well-wishers and neutral bystanders question his approach. The sheer scale of Wal-Mart's self-defence risks alienating people, by confirming their impression that it is an enormous beast with deep pockets. The company has set up a huge "war room" at its head office in Bentonville, Arkansas; it is running an advertising blitz to trumpet its virtues; and it recently hosted a conference in Washington to examine the economic effects of its business. That is to say nothing of all the time and energy that Mr Scott is devoting to the battle. Besides getting out Wal-Mart's message, he must hold endless meetings with lawyers and compliance officers to ensure that the global employer of 1.4m people does not slip up somewhere and give its critics more ammunition.

Christine Augustine, an analyst at Bear Stearns, reckons that, for all the risks, Mr Scott has little choice but to devote himself to this cause. One of the biggest dangers to the firm's bottom line, she says, is that those who benefit most from Wal-Mart—low-income consumers—cannot boost its profits much any more. Their disposable incomes, which have been squeezed by energy costs and

other factors, are not growing fast enough. So Wal-Mart needs to keep winning over middle-income shoppers, who tend to flock to its grocery sections for food but are more likely to go elsewhere for general merchandise such as clothing and electronics. If an all-out assault by its critics further tarnishes Wal-Mart's image, it could eventually hamper sales growth. The high cost of low popularity is something every business manager dreads.

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Silicon Valley mergers

Sue, kiss, marry

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The latest trend in Californian marriages

MANY marriages begin with courtship and end up in the courts. But the relationship between Adobe Systems and Macromedia worked the other way around; it began with a lawsuit and ended up with a marriage.

The two Silicon Valley software companies finally merged on December 3rd. But the original chat-up line was delivered by Adobe's lawyers in 2000. Bruce Chizen, Adobe's boss, sued Macromedia. There was no particular reason for the lawsuit, he recalls, but he had been irked for some time that Macromedia, a smaller company that makes, among other things, the ubiquitous Flash player that powers animated websites, had appeared to be embarrassing the much bigger Adobe, which makes such stalwart software programmes as Photoshop and Adobe Acrobat. Mr Chizen's people found an obscure patent that Macromedia was probably infringing, and took it to court. The idea was “to slow them down a bit”, smirks Mr Chizen, in his thick Brooklyn accent. Following protocol in such matters, Macromedia sued Adobe right back.

While the lawyers were making merry, terrorists attacked New York and Washington. Americans suddenly thought about things differently, and Rob Burgess, Macromedia's boss, called Mr Chizen directly. Shouldn't they save the lawyers' fees and give the money to the victims instead? The two men met in “a sleazy bar in Los Altos”, Mr Chizen says—a difficult feat, since the suburb is rather posh. They discovered that they were both working-class lads—one from Brooklyn, the other from Toronto—and hit it off. The conversation continued in the more salubrious surroundings of the Village Pub in Woodside, one suburb away from Los Altos.

The two men realised that their companies were really doing the same thing: working out “how to make things look prettier” on and off the web. They could have become partners, but Mr Chizen admits that “there was a piece of me that didn't want to admit defeat on the web”. It was more fun for him to buy Macromedia, for $3.4 billion. And, after receiving clearance from the regulators, here they are. In a fortuitous turn of events, it has since occurred to them that they could merge the ubiquitous Adobe Reader (which lets people read portable-document-format, or PDF, files on any kind of computer) with Flash to create a potentially powerful technology for the next generation of the web. Let the honeymoon begin.

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Economist.com BUSINESS

Volkswagen

Piëch under fire

Dec 8th 2005 | FRANKFURT
From The Economist print edition

Volkswagen's corporate governance seems increasingly bizarre

HO

My other car's a Porsche

DAY by day Volkswagen (VW), Europe's biggest carmaker, appears less like a public company, and more like a complex oligarchy. Now an institutional shareholder has demanded that Ferdinand Piëch, chairman of VW's supervisory board, resign because of conflicts of interest. William Browne of Tweedy Browne, an American investor, said corporate governance at VW is so flawed that it raised the question “whether you should invest any kind of money in Germany”.

Tweedy Browne owns only around 1% of the company. But it is a dangerous outfit to upset. Questions raised by Tweedy Browne led ultimately to the downfall of Conrad Black, the media mogul. And the firm's complaints about VW may strike a chord with other foreign investors, baffled by German corporate culture.

The origins of the complaint lie in the fact that Mr Piëch and his family are big shareholders in Porsche, the sports-car maker, which recently bought a 19% stake in VW. That poses questions about whose interests Mr Piëch represents in the many commercial arrangements between Porsche and VW. VW supplies about 30% of the components used in Porsche cars. Porsche Holding in Austria, owned by the families Porsche and Piëch, distributes cars from the Volkswagen and Porsche groups.

Germany's voluntary corporate-governance code, published in May 2003, is clear. “Material conflicts of interest and those which are not merely temporary” should result in the termination of a supervisory board member's mandate, it says. But VW officials and Mr Piëch claim that the conflict can be managed by the simple expedient of his leaving the room when commercially sensitive issues between Porsche and VW are discussed. Some regard this as just a little naive.

Mr Piëch last month demonstrated just how much clout he has as non-executive chairman when he defied the wishes of five colleagues on the supervisory board and of Bernd Pischetsrieder, the chief executive, by having his candidate, Horst Neumann, appointed VW's new labour director. Mr Neumann is a former official of IG Metall, Germany's biggest blue-collar union, which sees VW as its stronghold—some 90% of the workforce are members. VW's bosses and union representatives have in the past enjoyed a symbiosis that got too cosy. In July Peter Hartz, the previous labour director, resigned saying he was taking “political responsibility” for a scandal alleged to involve prostitutes and luxury foreign trips for “workers' representatives” at VW's expense.

Mr Piëch enjoys strong personal support from the ten workers' representatives on VW's 20-strong supervisory board. But his show of strength was apparently too much for Gerhard Cromme, chairman of ThyssenKrupp, who said he would step down from VW's supervisory board when his term expires next May. Mr Cromme refuses to comment, but he headed the commission that drew up the German corporate-governance code, adding gravity to his departure. For its part, Tweedy Browne is calling for Mr Piëch to resign and also says it will vote against moves by Porsche to put two of its executives on VW's supervisory board. But Wendelin Wiedeking, Porsche's chief executive, is unapologetic. He has denounced criticism of his firm's relationship with VW as “nonsense”.

VW's peculiarities make it all the harder for the two outsiders charged with running the company: Mr Pischetsrieder, who was recruited as chief executive from BMW in 2002, and Wolfgang Bernhard, previously at DaimlerChrysler, who came in February to head the Volkswagen brand. VW is faced with a huge cost-cutting exercise, while the power of IG Metall prevents it from lay-offs, except by natural attrition. A recent decision to build the Marrakesh, a new compact cross-country vehicle, in Wolfsburg, Germany, rather than at one of VW's sites elsewhere in Europe where labour is cheaper, was more political than commercial.

VW could yet bounce back. It has some excellent bestselling models, such as the Golf, the Passat and the Touran people carrier, as well as the Audi range. But its production costs remain high. And it is still reeling from purchases of luxury brands—Bugatti, Lamborghini and Bentley—led by Mr Piëch. It also remains to be seen if the Bugatti Veyron, which took six years to develop and was unveiled in September, will do much to buff the VW image. This 16-cylinder monster packs nearly 1,000 horsepower, the same as about a dozen family saloons, and is faster than a Formula 1 racing car. It has the blessing of Mr Piëch.

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Health care

Head and heart

Dec 8th 2005 | NEW YORK
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The battle for Guidant

WHATEVER the outcome of the battle for Guidant, an American maker of pacemakers and defibrillators for ailing hearts, hindsight is likely to show that at least one of the bidders missed a beat. Either Johnson & Johnson went too far last month in cutting its offer from $25.4 billion to $21.5 billion, after a dreadful summer for Guidant in which it was forced to recall some of its products and warn of a high failure rate in others. Or else Boston Scientific overvalued Guidant when it joined the fray this week, offering $25 billion in cash and shares, almost as much as J&J had first bid a year ago.

Boston and J&J are already rivals for the hearts, if not the minds, of the American public. Between them they dominate the market for a medical life-saver called a drug-eluting stent—a tiny spring-like piece of metal coated with slow-dissolving drugs which can be used to prop open narrowed heart and other arteries after surgery. Now both want to extend their range of heart products by acquiring Guidant. At least until summer's product recalls, sales of Guidant's defibrillators, which detect and correct fast and irregular heartbeats, were growing rapidly, thanks to better technology and an ageing population.

For Guidant, Boston may now appear the friendlier bidder as well as the higher one. There were smiles all round when J&J first bid for Guidant in December last year, but by autumn this year J&J was talking of cutting its price sharply or even walking away. On November 7th Guidant took J&J to court, and the $21.5 billion revised offer was the grudging outcome.

A merger with Boston could also give Guidant a better shot at preserving its own identity. Boston is slightly the smaller by market capitalisation, and Guidant shareholders would emerge with roughly one-third of the combined company. A merger with J&J, on the other hand, would see Guidant swallowed into a huge and diversified group. J&J could easily afford to raise its offer. Boston could not. But J&J would risk looking foolish if it went that route, having cut its price only weeks before. And besides, according to bid documents released this week, J&J cut its price when it already knew that Boston might make a counter-offer. All this gives reason to think that J&J will indeed stand firm, perhaps bidding for another medical-devices company later—and leaving Boston to manage a merger with a now somewhat shop-soiled Guidant.

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Economist.com BUSINESS

Reinventing Thailand

Glow in the dark

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From The Economist print edition

Thailand needs foreign investment to stay competitive

MORE than 100km (62 miles) south-east of Bangkok, Glow's gas-fired generation plant churns out the electricity that keeps the lights burning in one of Asia's largest cities. Glow's significance goes well beyond the power it generates. Like all the former Asian “tigers”, Thailand is racing to turn itself into a modern service-based economy, in the face of fierce Chinese and Indian competition. The Thai strategy involves revamping the country's ramshackle infrastructure, with the aid of huge amounts of foreign capital.

Glow is an almost entirely foreign project—majority-owned by one French company (Suez), built by another French company (Alstom) and financed by numerous international banks. More foreign investment is crucial to financing the “mega-projects” demanded by Thaksin Shinawatra, the Thai prime minister. Over the next four years, the government plans to invest 1.7 trillion baht ($41 billion, or 26% of gross domestic product) in infrastructure, spanning electricity generation, transport, housing, irrigation, health and education.

The need for fresh investment is clear. Bangkok is still choked by traffic despite the opening—three years late and $900m over budget—of a mass-transit system. Transport costs still weigh heavily on business and the telecoms network is outdated, with only a tenth of the population hooked up. Even the country's reliable electricity grid could be hit by shortages in a few years unless new capacity is commissioned soon.

Inferior infrastructure is accelerating Thailand's loss of manufacturing jobs to cheaper Asian rivals. Its status as a regional hub for the car and electronic-components industries is under threat from China in the north and Vietnam in the south. To compensate, the government wants to turn the country into a centre for regional trade and business—hence planned new highways to the north into China and stretching west as far as Burma and India.

Daniel Lian, Morgan Stanley's South-East Asia economist, says Thailand must also shift from generic mass manufacturing into specialist markets with higher, more defensible profits. Medical tourism is one option. Bumrungrad Hospital, Bangkok's top private clinic, is admired for world-class but cheap heart by-passes, cancer care and cosmetic surgery. So popular is the “Thailand tuck” that one third of the hospital's 1m patients are now foreign. Long-stay tourism is another niche, with Japanese pensioners spending their entire winters on Phuket beaches. Thailand also has a fledgling fashion industry, whose designers recently toured Beijing and Paris.

But it is the “mega projects” that could do most to lift growth following what Pridiyathorn Devakula, governor of the Bank of Thailand, calls “a perfect storm”—high oil prices, a drought, a tsunami, unrest in the Muslim south and a downturn in the global electronics industry. These have slowed Thailand's economic expansion from 6.2% in 2004 to a forecast 4.7% this year. At a *Euromoney* conference entitled “Amazing Thailand” in Bangkok last month, Mr Pridiyathorn assured investors that—despite Mr Thaksin's reputation as an economic nationalist—up to 600 billion baht or 35% of the value of the mega projects will be open to foreign tender, including the

big transport and power schemes. Almost two-fifths of the initiative's cost will be funded by private-sector borrowing, both foreign and local.

Some foreign investors already see Thailand as a good alternative to China, offering safe, profitable and well-managed projects—as well as a more open political climate and better middle-management. Megan Reilly Cayten of Citigroup, which played a large role in financing Glow, says that: “Thai power projects are exemplary in Asia.” But while European and American investors are generally keen, the real battle may be between the Japanese and Chinese—a struggle that inevitably has political and strategic overtones. Some 300 Chinese firms have already invested in the country and Japanese banks and trading houses, with their balance sheets repaired, are returning to the region.

But are the Thai government's finances robust enough to ensure its mega projects get off the ground? This month's failure to float Egat, the electricity monopoly, could lead it to pare back their scale, already cut from more than 2 trillion baht. Foreign investors are likely to want the government on board—with all its financial guarantees—before they commit themselves to expensive, long-term deals. A boost from infrastructure investment would certainly be handy for Mr Thaksin, whose popularity has been sliding lately as growth has slowed. He has stayed uncharacteristically silent during the recent economic downturn, blaming a misalignment of the heavens for his misfortunes. “Mercury is no good, so I'll just wait until next year to talk,” he told reporters recently.

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Economist.com BUSINESS

Face value

A tale of two BTs

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Landov

Having transformed BT, can Ben Verwaayen now transform its customers' perception of it?

ASK some typical BT customers what they think of Britain's incumbent telecoms company, and you are liable to hear the usual grumbles about engineers who do not show up, broadband connections that fail to work, and touch-tone customer-service menus that lead to endless hold-music. Standard stuff for a big telecoms company, in short. But ask an industry analyst about BT and you will hear a very different story. British consumers may be surprised to hear that within the telecoms industry, BT is seen as a bold, visionary company.

Under its energetic Dutch chief executive, Ben Verwaayen, who took over in 2002, BT has embarked upon an ambitious, £10 billion ($17.5 billion) plan to replace its entire network—except for the bits of copper wire at the edges—with a new "21st-century" network based on internet technology. It is a task that plays to the strengths of the somewhat geeky Mr Verwaayen, who came to BT from Lucent, an equipment-maker, and prefers arcane but precise network diagrams and technical acronyms to vague marketing-speak. A debating champion in his student days, he has struck an elegant deal with Ofcom, Britain's telecoms regulator, that establishes a clear new regulatory regime. The first calls over the new network were made a few weeks ago, and by 2009 BT will have the most advanced national network in the world. Its transformation, which started with a back-of-an-envelope sketch made by Mr Verwaayen in 2002, is perceived as blazing a trail that other telecoms incumbents will eventually follow. "They are way ahead," says Cyrus Mewawalla, an analyst at Westhall Capital, a stockbroker. "Everybody knew this was the future, but nobody is investing so much in it."

The most visible manifestation of this overhaul, to BT's customers, will be the company's move into television, which can be piped over the new network. This week the company elaborated on its plans for new video services and announced its first content deals, with the BBC, Paramount and Warner Music. BT's set-top boxes will plug into a broadband connection, and will also double

as digital terrestrial receivers, so that receiving standard digital broadcasts will be free. Viewers will pay only to watch movies or “catch-up TV” (a menu of the previous week's broadcasts), streamed on demand over the broadband link.

BT's souped-up network will help it compete in Britain's fast-converging market for telephony, broadband and television, in which it faces BSkyB (a satellite operator that acquired Easynet, a broadband provider, for £211m in October) and NTL (Britain's biggest cable operator, which has announced plans to merge with Telewest, its main rival, and this week bid £817m for Virgin Mobile, a mobile operator). That said, Mr Verwaayen says that he is not convinced that consumers really want convergence. The “triple play” of voice, broadband and TV is, he says, driven by marketing, not customers' needs. People really want choice and flexibility, he suggests, so there is no point in BT simply trying to duplicate the “triple-play” bundle on offer from cable operators. “We have a strategy that we think is smarter,” he says. The best way for BT to differentiate itself is through services made possible by its new network: he gives the example of a conference call, mediated via the set-top boxes, between groups of friends watching the same sporting event. “It's interactive, a fantastic experience,” says Mr Verwaayen, a passionate football fan.

Another area where BT is regarded as a pioneer is “fixed-mobile convergence”—in essence, the ability to use your mobile phone as a cordless telephone within your home or office. The technology is complicated but, Mr Verwaayen insists, the benefits are simple and obvious: calls made within the home are cheaper and sound better than with an ordinary mobile phone. While it is still early days for this service, called Fusion, there is no doubt that the whole industry is watching BT's experiment.

But the bits of BT attracting most attention are its services and systems-integration divisions, which build and manage networks and computer systems for big companies and government departments. This week BT won an £870m contract from Britain's pensions department. What was previously a “hidden jewel”, says Mr Verwaayen, is now an important engine of growth. Indeed, since the traditional consumer-voice business now accounts for just 28% of revenues, he now likes to describe BT as “a business-to-business company with a substantial consumer business” attached to it. (Disgruntled retail customers would no doubt agree.) In the most recent quarter, revenue growth from BT's “new-wave” divisions—including broadband, Fusion and systems integration—more than offset declining revenue from voice calls. Even before it launches TV services, BT seems to have found a way to plug the gap as voice revenues fall.

Not your grandma's phone company

With its pioneering strategy, shiny new network, innovative fixed-mobile hybrid offering and booming services arm, BT is no longer the lumbering dinosaur it once was. But somebody seems to have forgotten to tell its 22m retail customers. Why the disconnect? Mr Verwaayen likes to think the problems are to do with the company's history, rather than its defects today: “BT is the company of Grandma's telephone in the hallway,” he says. “You have to ask if you can use it, and you have to keep the calls short. It is very hard for people to change that institutional memory.”

BT is moving forward with the technical side of its transformation. But the company's behind-the-scenes technical overhaul must be matched by a more visible renovation if BT is to make the most of its new network and compete on the TV front with more potent brands such as BSkyB or Virgin. “It's our biggest challenge,” says Mr Verwaayen. “I'm not worried about our ability to grow. What I don't know is whether we'll have enough focus on our brand to convince people that we really are a different company.” But convince them he must.

Economist.com BUSINESS

The greening of General Electric

A lean, clean electric machine

Dec 8th 2005
From The Economist print edition

Reuters

Jeffrey Immelt is betting the future of his company on environmental technologies

Get article background

NEXT month General Electric's corporate bosses will drop a bombshell on the hard-charging managers of its global businesses. In future they will be judged not only by all the usual measures, such as return on capital, that investors typically care about: they will also be held accountable for helping to save the planet.

Every GE business unit will have to cut its emissions of carbon dioxide (CO_2), the main greenhouse gas (GHG) behind global warming, by a different target. Energy-intensive divisions such as plastics and locomotive manufacturing will need to make big cuts in emissions, while the paper-pushers at the group's financial-services divisions will be told to aim at smaller, but still ambitious, cuts.

GE's new goal is to cut its overall GHG emissions by 2012 to 1% below their level in 2004. That might not sound ambitious, but if no climate policies are enacted, the company's projected revenue growth would increase its GHG emissions by 40% above 2004 levels. The firm also vows to cut the intensity of its GHG emissions (that is, the amount of GHG emitted in terms of its economic activity) by 30% by 2008. By comparison, the UN's Kyoto Protocol calls for Europe to reduce its GHG emissions by 2012 to 8% below the 1990 level and George Bush's voluntary climate scheme calls for an 18% cut in America's GHG intensity from the level in 2002 by 2012.

This is a dramatic U-turn by any measure, but will be especially startling to environmentalists, who have long pilloried GE for boosting coal and nuclear power and for dumping chemicals in New York's Hudson River. It will also come as a surprise to many of GE's industrial customers, who have long thought it a staunch ally against environmental campaigners. Many in both camps may be tempted to dismiss GE's latest rhetoric as “greenwash”, little more than a public-relations ploy to confuse the public about the true nature of its businesses.

But that would be a mistake. GE's new-found embrace of greenery appears both genuine and substantive. Jeffrey Immelt, GE's boss, is leading the effort himself, campaigning for it both inside and outside the company, as well as backing it with large amounts of new investment. In fact, it is not an exaggeration to say that Mr Immelt is embarking on the most ambitious and risky strategy for GE since the 1980s, when the combative Jack Welch, then its boss, reshaped the company by slashing costs and selling business units.

Mr Immelt is so convinced that clean technologies will be the future of GE that, invoking the colour of American money, he has made his new mantra: “green is green”. If he is right, then not only will GE benefit, but businesses everywhere will have to follow in its tracks in one form or another. If he is wrong, Mr Immelt will have led one of the world's biggest and most powerful companies down a dead-end, and the cost to its reputation, if not its financial performance, is likely to be huge.

Until Mr Immelt's change of direction, green technologies have not played much of a part in GE's growth. For decades the company's energy business has been focused on fossil-fuel power plants or nuclear energy. Nuclear power may now be garnering support from some environmentalists, but GE's past interest in the atom had little to do with the environment. In the 1960s defence contracting helped fuel the company's growth. In the 1990s financial services took on that role.

Look at GE today and greenery has moved front and centre. Mr Immelt has embraced a sweeping new strategy—dubbed “Ecomagination”—that he hopes will persuade Wall Street that clean energy can be a lucrative business. The firm has rolled out a flashy advertising campaign to promote its new “clean coal” technologies. GE is targeting politicians too. Mr Immelt himself launched the new campaign in Washington, DC, Brussels and Tokyo, repeating his “green is green” slogan.

The new campaign makes some extravagant promises. The company vows to double its revenues from 17 clean-technology businesses, ranging from renewable energy and hydrogen fuel cells, to water filtration and purification systems, to cleaner aircraft and locomotive engines. This would take such products from $10 billion in sales in 2004 to $20 billion by 2010, with more ambitious targets thereafter. To get there, Mr Immelt has promised to double research spending on clean products, from $700m per year to $1.5 billion, by 2010. (GE's total research expenditure was $3.1 billion in 2004 and its revenues were $152.4 billion.)

Most striking, however, is GE's new position on climate change, an issue that divides corporate America. Some large industrial groups have long argued that the climate problem is real. Three dozen such big firms—including DuPont, United Technologies and Whirlpool—have been united by the Pew Centre on Global Climate, a non-partisan charity, to lobby for action by America's federal government to curb CO_2 emissions. Many others, notably Exxon-Mobil, but also much of America's coal-burning utility sector, have remained deeply opposed to any such efforts—as has President Bush. Awkwardly, many of those utility firms are GE's customers.

It is therefore remarkable that Mr Immelt and other senior GE officials now publicly proclaim that global warming is real, and also call for American government regulations to deal with it. GE is sticking its neck out and, among the most influential big American businesses, it has taken something of a lead.

Two big questions will determine whether GE's green initiative pays off. First, is Mr Immelt right to believe that greenery can be handsomely profitable, as well as socially responsible? Second, can he really transform GE's recent approach to innovation, which has concentrated mostly on incremental improvements of well understood technologies, to one pursuing riskier and less-proven technologies such as fuel cells, solar energy, hydrogen storage and nanotechnology?

Given GE's history, many environmental campaigners have been understandably sceptical about Mr Immelt's Ecomagination initiative. After all, Jack Welch turned GE into a target of green ire with his arrogant defence of the company's refusal to excavate noxious chemicals it had dumped into the Hudson River (which was legal at the time). Mr Immelt has wisely accepted defeat on the matter in order to move on, and GE is now removing the offending chemicals from the Hudson's riverbed.

GE otherwise has a good record on purely local environmental standards and this may yet prove an unexpected bonus as it tries to reshape itself to exploit opportunities created by national and global efforts to control GHG. Daniel Esty, who heads Yale University's Centre for Environmental Law and Policy, applauds GE for its high standards, detailed use of data and holding its managers accountable for local green goals. The public may not be aware of this, but other companies seem to be. In Mr Esty's polls of bosses at big firms, GE comes out top for the most “underrated” environmental performance.

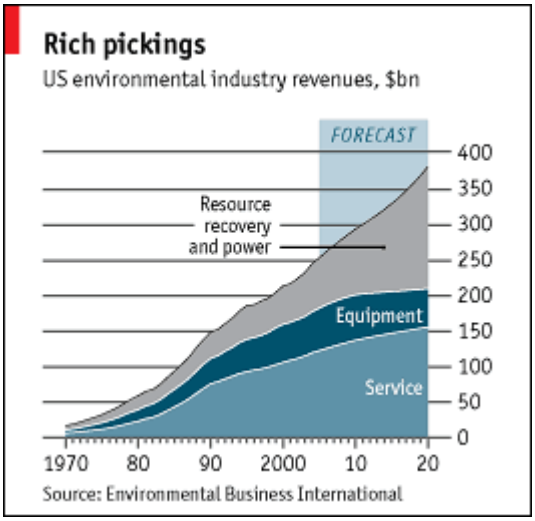
There is good reason to think Mr Immelt is sincere about his green strategy. GE does not need to make a bally-hoo about greenery to defend its existing businesses. As an industrial firm that deals primarily with other industrial companies and governments (and rarely direct with consumers), GE is in a better position than many to ignore criticism from environmental groups or the threat of green boycotts. Furthermore, the company is involved in such a range of energy technologies (including dirty coal plants, nuclear generators, natural-gas turbines and wind) that it does not need carbon regulations in the way, say, a narrowly focused fuel-cell or solar-cell maker might. Despite all this, Mr Immelt is pushing for action by America's government on carbon emissions. And he wants to turn GE a deep shade of green.

To understand why, turn to the first question hanging over Mr Immelt's plan: is he right that green is green? Although scepticism towards such claims is generally warranted, Deane Dray of Goldman Sachs, an investment bank, endorses Mr Immelt's judgment: “Every one of the Ecomagination initiatives looks commercially viable, even without the green angle.”

One reason to think GE's chief may be right is the potential for dramatic growth for infrastructure technologies in developing markets. David Calhoun, a GE vice-chairman, identifies China and India as the key to rapid growth in demand. In both countries water and sewerage systems need to be vastly expanded, and governments in both countries are also coming under intense public pressure to curb what are often appalling levels of local pollution from factories and power plants. They say they want both to maintain rapid economic growth and to do it more cleanly than in the past. Mr Dray expects 60% of GE's overall revenue growth to come from such markets over the next decade. Sales of greener technologies, if they can be priced correctly, should be a big part of that.

GE's hopes are not limited to poor countries. Even in America, overall sales related to environmental technology have been growing rapidly and, if anything, look as if they will accelerate (see chart). Not content to rely on this trend, the company will also seek to build new markets, says Beth Comstock, GE's head of marketing. “Environmental technologies must have a business model around them to succeed,” she declares.

Ms Comstock points to the ways GE markets its greenery. One is a sales “score-card” that explains to customers in dollars and cents exactly how the lower emissions and higher fuel efficiency of a new GE product (for example, its cleaner locomotive engines) convert into money saved on fuel. Another pushes service contracts for maintaining water-filtration systems or maintaining windmills. These can be five or more times as lucrative for GE as the initial sale of capital equipment. Ms Comstock also points to entirely new lines of business: the company wants to become an “energy services” consultancy and to enter the green construction field.



Listen to the customer

Ultimately, green will turn green only if GE's customers actually want greener products. Before launching the new strategy, the firm spent 18 months discussing it with customers. GE invited bosses from various industries to two-day “dreaming sessions” where they were asked to imagine life in 2015—and the products they would need from GE. The company says it took away a clear message: rising fuel costs, ever tighter environmental regulations and growing consumer expectations will translate into demand for cleaner technologies, especially in the energy industry.

Pointing to those customer sessions, Mr Calhoun says, “This is not just GE jamming environment down their throats. We decided that if this is what our customers want, let's stop putting our heads in the sand, dodging environmental interests, and go from defence to offence.”

Another reason to think that Mr Immelt is not wasting shareholders' money is one that he perhaps might not advertise openly. He is asking for government intervention on carbon emissions not just to help the planet, but also because he believes it will create opportunities that his company may be better placed to exploit than rivals stuck with older, dirtier technologies. Indeed, GE's effort, argues Myron Ebell of the Competitive Enterprise Institute, an industry-friendly think-tank in Washington, DC, is a form of rent-seeking that should raise eyebrows.

Even so, it is a noble endeavour, argues Jim Rogers, head of Cinergy, a coal-fired American utility and GE customer. The most interesting of GE's dreaming sessions were those with electric utilities—which are at the heart of the global-warming controversy. Mr Rogers was at one such event. As he puts it, “in private, 80-85% of my peers think carbon regulation is coming within ten years, but most sure don't want it now.” After trotting in renowned experts to talk about energy poverty and climate change, Mr Immelt himself made the case for low-carbon technologies, including clean coal. “Jeff was clearly pushing for his economic advantage, but he was masterful,” says Mr Rogers. He thinks that GE's “visionary leadership, just a little ahead of my industry” may soon help push the American energy business “from denial to pragmatic acceptance” of mandatory caps on carbon emissions.

If so, it would spell still more sales for GE. American Electric Power (AEP), the utility that burns more coal than any other in the western hemisphere, bitterly opposes mandatory action on carbon. However, after Mr Immelt began arguing for Ecomagination, the firm agreed to a joint-venture to test new clean-coal technology that GE is pioneering. One AEP official explains the apparent contradiction: it now expects carbon regulations to come “sometime over the next 30 years”. It wants to encourage low-carbon technologies that will give coal a new lease on life. If carbon caps are enacted by America earlier than that, GE's already fast-growing wind-turbine

business, as well as its long-established nuclear-reactor business, would also benefit enormously.

Not enough green?

If Ecomagination is not greenwash—and might even make GE some money—that still leaves the final, and hardest, question: can the company pull it off? The answer is not yet clear. Two big obstacles could stand in the way of Mr Immelt's scheme.

First of all, the environmental markets that the pundits forecast and GE is betting on may not materialise. Grant Ferrier of Environmental Business, an industry publishing outfit, observes wryly that this is not the first boom the sector has seen. Back in the 1980s and 1990s, many blue-chip firms, ranging from DuPont and Dow to big French and British water companies such as Suez, forged into environmental services. Many were confidently predicting long-term double-digit growth and some invested heavily in developing-country markets.

Alamy

Another profit opportunity

Alas, by the late 1990s many of these firms had scaled back their investments. The market continued growing, but not at the sizzling pace they had originally expected. GE may be better positioned than those earlier entrants, argues Mr Ferrier, given its deep pockets and top-level commitment to the approach. Even so, forecasts of endlessly fast growth should be treated with caution.

That lesson has already been learned by BP, which ran into a similar problem with its “Beyond Petroleum” campaign. The company generated much enthusiasm early on with its lofty talk of a clean-energy revolution, but now appears to be back-pedalling on when it thinks renewables and fuel cells will take off. To be fair, BP did invest large amounts of money in those areas. And the company has just unveiled plans to invest some $8 billion more over the next decade in its newly created low-carbon energy division, which it hopes will earn $6 billion a year in sales by 2015. And yet change comes slowly in the energy business, because refineries and coal plants last for 40 or 50 years. Branding aside, BP will remain a mostly oil-and-gas business for a long time. Lord Browne, BP's chief executive, observes that it is dangerous to promise too much on green issues—a lesson GE would be wise to heed. “Be very careful to separate aspirations from actual promised actions,” warns Lord Browne. “Business is about doing business, it's not a surrogate for government or public service.”

Even if the green markets that Mr Immelt dreams of do arrive as soon as he hopes, they may not prove as profitable as his shareholders would like them to be. China and India are booming. They may crave the latest and cleanest technologies, but do they really want to pay rich-world prices for them? Push Mr Calhoun hard and he concedes that margins in China are, in fact, tight—especially in the energy business. He has just sold no fewer than 300 locomotives there, he says. But at what margin? He suggests obliquely that margins will eventually improve, as the last 100 of the locomotives will be built with Chinese labour and parts.

Taking a big swing

The other big risk to Ecomagination comes from GE's own culture. Some experts argue that GE does not have a record of successful product breakthroughs, unlike such famously innovative firms

as 3M or DuPont. Gina Colarelli O'Connor of the Rensselaer Polytechnic Institute, a respected engineering university, has studied innovation at big firms for years. She points out that the company is famous for its relentless pursuit of “Six Sigma”, which was championed by Mr Welch. The axioms of this statistics-based approach to quality control have permeated every aspect of the company's operations, and are credited with making GE managers extraordinarily good at delivering exactly what they promise. That is fine for a company focused on incremental improvements and fiercely disciplined execution. But that culture may not be ideally suited to creating the innovations and nimble new businesses the green strategy requires. Even if the firm's laboratories produce the technological breakthroughs, she says, marketing and sales teams may be reluctant to embrace them.

Lorraine Bolsinger, the head of Ecomagination, agrees that Six Sigma emphasised “execution and frowned on deviations from the plan”, and that the new project departs from this way of thinking. It is also different from Six Sigma, she says, in that it starts with the customer and “it is vastly about technology”. During the years when GE's profits at its finance arms stole the limelight from the industrial and research parts of the firm, she concedes that “techies like me were lonely and overshadowed”. When Mr Immelt announced he would double the research budget for clean technologies, officials at the firm's Global Research Centre in upstate New York started “doing the Snoopy dance out in the parking lot”.

Mr Immelt has set out a vision for growth and is backing it up with hard targets and lots of money. But he is asking his managers to depart from a well-known and successful path. Can GE rise to the challenge? It remains an open question. “Jeff is asking us to take a really big swing. Fail early, fail fast,” says Ms Bolsinger, a 25-year GE veteran—before adding, with endearing honesty: “this is hard for us.”

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Global trade

Weighed in the balance

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The Doha round of world trade negotiations was supposed to lift many millions out of poverty. It looks unlikely to do so

Get article background

LAUNCHED in a spirit of global solidarity two months after the terrorist attacks of September 11th 2001, the Doha round of global trade talks has always been billed as being about more than just trade. Its official title is the “Doha Development Agenda”. Its purpose, as Tony Blair recently put it, is “to create the conditions in which millions of people will have a chance to escape poverty.”

Such lofty aspirations are sure to be given voice often in Hong Kong next week, when the world's trade ministers meet with the aim of reviving the flagging negotiations. Whether the Doha round will live up to those aspirations is less certain. This is not only because the talks are stalled. Perhaps more important, the benefits of the round to the world's poorest people have anyway been overstated. And most important of all, neither developed nor developing countries have been ambitious enough to seek the degree of trade liberalisation needed to help the poorest.

Start, though, with the state of the talks. Originally, they were supposed to have finished a year ago. Then it was agreed that the outlines of a deal would be set in Hong Kong. That deadline will also now be missed. The most important decisions—how much to cut farm subsidies and tariffs or to lower barriers to industrial goods—will be put off again, probably until March.

The gaps, especially on tariffs, between the main sides are too wide to be bridged. America wants deep cuts across the board. The European Union wants to see big developing countries, in

particular, reduce industrial protection, but is loth to slash its farm tariffs—the developing countries' price for any cuts of their own.

The Hong Kong meeting may yield something to allow the politicians to claim that Doha's pro-poor mission will be fulfilled: maybe a promise of the faster removal of cotton subsidies; perhaps a pledge by the rich to waive tariffs and quotas on all, or almost all, exports from the 50 countries officially designated as “least developed”. But not even this is assured. America, a heavy subsidiser of cotton, opposes a special deal for the crop. Its textile industry is also opposed to free access for imports from the poorest countries.

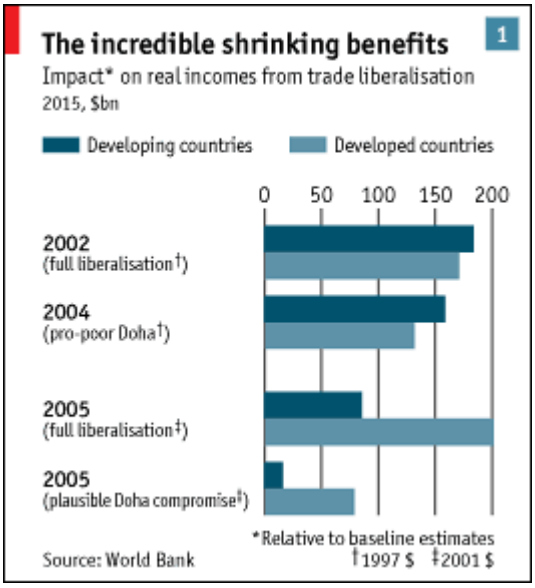
Eventually, if not in Hong Kong, a deal of some sort will probably be done. Economists have been ruminating on what this agreement might contain and how much it might help the world's poor. Their conclusions are disappointing. Two new books* from the World Bank suggest that the Doha round, if it stays on its present course, will do much less for the poor than promised.

And found wanting

The Bank's most comprehensive trade model, for instance, estimates that if trade in industrial and farm products were fully freed, the one-off gains from reallocating resources more efficiently could boost income in developing countries by $86 billion by 2015 and pull an extra 30m people out of extreme poverty. Two-thirds of these would be in Africa.

A more plausible assumption, however, would split the difference between the American and European positions on farm trade and allow developing countries to cut their tariffs by much less than rich ones. This would raise developing countries' income by $16 billion by 2015. Only 2.5m more people would be freed from extreme poverty than if there were no deal at all. Sub-Saharan Africa would gain almost nothing and only 500,000 of its people would escape extreme poverty.

The Bank used to sound much more optimistic (see chart 1). In early 2002, just after the Doha round was launched, it estimated that the efficiency gains from full trade liberalisation would boost developing countries' increase by almost $200 billion and reduce the number of extremely poor by over 100m. Subsequently, it suggested that a less ambitious round could still lift at least 60m people out of the direst poverty. Now, says one Bank economist privately, Doha could mean only “small beer” for the poor.



Why does the round now seem to offer so little? Part of the reason lies in the computable general equilibrium (CGE) models used by the Bank's (and other) economists. Some models are “static”, measuring only the one-off reallocation of resources that comes from freeing trade, which means they understate the long-term gains. Others are “dynamic”, trying to capture how trade gains boost investment and productivity growth. The Bank's flagship model lies in the middle. It captures only the one-off gains, but looks at their effect on the world economy over a decade. It misses out trade's effects on productivity and the benefits of freer trade in services. Therefore it understates the likely long-term gains.

Some aspects of early estimates exaggerated Doha's potential. Until this year, all CGE models

were based on tariff data from 1997 and hence attributed all liberalisation since then (such as that coming from China's accession to the World Trade Organisation) to the Doha round. Nor did they take into account the preferential low tariffs that rich countries already offer to some of the poorest countries.

The Bank's economists have also scaled back their estimates of how much trade reduces poverty. Early models assumed that extreme poverty in any country would fall by 2% for every 1% increase in its income. The new numbers suggest a bigger impact in East Asia but a far smaller effect (0.9%) in sub-Saharan Africa.

You might conclude from all this that free trade has little to offer the world's poor, especially in Africa. That would be wrong. Even the Bank's new estimates say that fully free trade in goods could boost Africa's income by more than, say, this year's much-hailed deal on debt relief.

The Doha round has always been very unlikely to end in fully free trade. Yet even by more modest standards, it has ended up with the wrong emphasis. Worse, it has been plagued by a lack of ambition on the part of the poor as much as the rich.

Agriculture is the prime example of how the round has got its priorities wrong. In goods, freer farm trade could in theory yield the most for the world's poor. However, negotiators have made more progress in pledges to cut rich countries' subsidies than they have in slashing tariffs—and more than 90% of the gains from freer farm trade come from tariff-cutting. Contrary to received wisdom, slashing the rich world's trade-distorting subsidies has a relatively small effect on poor countries.

Granted, big developing-country exporters, notably Brazil and Argentina, would gain from reduced subsidies. So would Africa's cotton producers (which is why a quick deal on cotton subsidies is a good idea). But many poor countries are net importers of food. If subsidies are removed, world food prices will rise, helping their farmers but harming their consumers. Overall, developing countries do gain, but by much less than from lower tariffs.

And if the rich cut tariffs, it would hurt some of the poor, because America and the EU already offer selected poor countries preferential access to their markets. These countries lose if tariffs fall, because the margin of preference is eroded. European officials have used this as an argument against deep tariff cuts. “Be aware”, Peter Mandelson, Europe's top trade negotiator, warned the poorest countries last week, “that some of the alternative tariff-cutting proposals on the table will...wipe out whole sectors of your economy.”

However, the truth is that thanks to restrictive rules, tariff preferences, particularly the EU's, are less generous than they look. Nor are they all targeted at the poor: many of the world's poorest people live neither in the 50 least developed countries nor in Europe's ex-colonies. And although a few countries (such as Malawi, Mauritius and several Caribbean islands) would lose a lot, most would lose a little. Overall, the gains from lower tariffs outweigh the costs. Cutting tariffs and compensating the losers with increased aid makes sense.

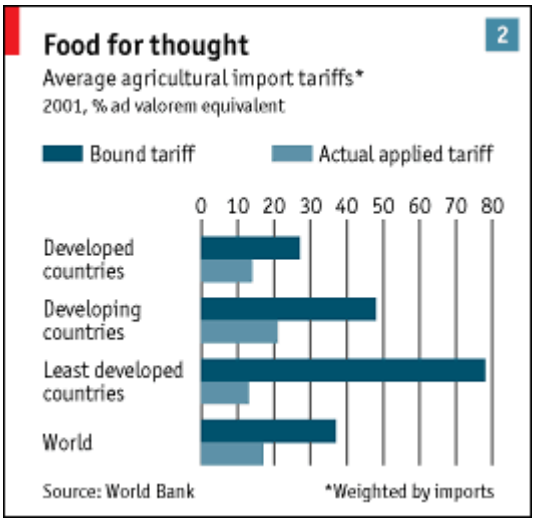
A lack of ambition

Rich countries have deservedly taken much of the blame for the sorry state of the Doha round. But an important reason why the round will produce fewer benefits than it could has more to do with poor countries' trade policies. Half of what developing countries could gain from fully free trade would come from their own tariff cuts, because a third of their exports are to other poor countries and because their tariffs are much higher than those of the rich. But because trade diplomacy starts from the assumption that free trade is a concession to foreigners, not a boon in

itself, poor countries are usually expected to liberalise less. Doha's “pro-poor” promise has merely reinforced this practice.

The negotiations are suffused with special terms for developing countries. The poorest, including most of Africa, will not have to lower their legal tariff limits at all. Even the likes of India or Brazil will have more exceptions and will cut their tariff limits by less than the rich.

Most developing countries set actual tariffs far below the legal ceilings, but this makes matters worse, not better. They need to cut their negotiated level by more if they are to reduce their levies at all. The EU's average actual farm tariff, for example, is 12%, while the average bound tariff is 21%. In developing countries the average actual farm tariff is 21%, against a bound rate of 48%. In the poorest countries the discrepancy is greater still (see chart 2). Poorer countries would gain most by making proportionately bigger cuts, the opposite of the Doha logic.



It is true that the poorest countries often face the biggest obstacles to reaping the gains from trade and that economists' models often assume these obstacles away. Many rely on tariffs as a source of government revenue. Weak infrastructure and underdeveloped credit markets can make economic restructuring difficult. These problems underline why trade liberalisation is no substitute for either more domestic reform or foreign aid. They also suggest that some of the poorest countries need more time to open their markets than others. Unfortunately, the Doha negotiators are taking that logic much too far. And the losers will be the world's poor.

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* “Agricultural Trade Reform & the Doha Development Agenda”, edited by Kym Anderson and Will Martin, and “Putting Development Back into the Doha Agenda: Poverty Impacts of a WTO agreement”, edited by Thomas Hertel and Alan Winters.

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Economist.com FINANCE & ECONOMICS

Investment banking

Analysis paralysis

Dec 8th 2005
From The Economist print edition

The pressure on equity analysts

AS STOCKMARKET indices return to levels last seen in 2001, many investors are able to put the bear market comfortably behind them. Not so equity analysts working for investment banks, who are still feeling the after-effects—and things may be about to get worse.

Analysts, especially in the United States, were widely blamed for plugging initial public offerings (IPOs) of telecoms and dotcom companies, even those they privately derided. Wall Street banks reached an expensive settlement with American regulators in April 2003, and were forced to change the way they ran their businesses—among other things, by preventing investment bankers from directly influencing analysts' pay.

The ground is set to shift again, as both regulators and fund managers devise new ways to make the cost of research transparent. The effects of this latest change are being felt in Europe as acutely as in America, albeit in different ways. On January 1st Britain's Financial Services Authority is introducing “unbundling”, an ugly way of saying that brokers must tell investing clients how trading commissions are split between the price of executing trades and fees for the insights of analysts.

This is much more than just an internal reporting nuisance for banks. Unbundling will give fund managers better cost data and the ability to measure returns on the research they buy from investment banks. Larger funds, with experienced in-house research staff, may decide to forgo external analysis altogether if this means negotiating lower commissions. And British retail investors should get to keep a bigger share of the returns on their funds.

In Paris, a working group sponsored by the French markets regulator is consulting market participants on the merits of tighter standards, which it may ultimately seek to raise with the European Commission. This group is concerned that “buy” ratings on French shares outnumber recommendations to sell by two-to-one, reflecting bias among sell-side analysts. (Quite what the “right” ratio should be, however, is hard to say.) In the longer run it also worries that “cyclical momentum”, a polite reference to herd mentality, might inflate asset prices, as it did in 1999.

In a report published in July this working group recommended fair access and compulsory independent research as ways of changing analysts' behaviour and making the economics of research clearer. Sometimes only analysts who write favourably about a business's prospects are given the most valuable data on the company, while critics get short shrift from its managers. It is unclear, however, how a rule designed to ensure equal access might work in practice.

The second proposal would oblige new issuers of equity to provide potential investors with independent research as well as reports from banks with an interest in the success of IPOs. Independent research firms do not generate banking fees or make profits from trading their own capital. Yet competition from independents seems to be growing even without the help of compulsion. Standard & Poor's Equity Research, a unit of the rating agency, has doubled the

number of its analysts in Europe since early 2004. And as banks have cut research staff in recent years, smaller boutiques have flourished, offering research into single industries, such as financial services or technology.

In America the pressure on banks' analysts continues to mount. Fidelity Investments, America's biggest mutual-fund company, recently struck a deal with Lehman Brothers to pay a fixed subscription fee for the investment bank's research, in return for lower commissions on trades. More such agreements may follow.

Banks on both sides of the Atlantic are now under pressure to demonstrate why their research is worth paying for. They have a case to prove. A study published last year by Brad Barber, Reuven Lehavy and Brett Trueman, three American academics, found that between 1996 and 2003, shares recommended by independent research firms outperformed by eight percentage points a year those that investment banks had rated “buys”. Meanwhile the cost of tighter regulation is making it harder for analysts to pay their way. Compliance costs already account for around 30% of expenses, according to one head of research, and may rise further.

At this time of year, analysts are waiting to learn the size of their bonuses. According to a survey by Armstrong International, an executive search firm, senior equity analysts in London expect to be paid £450,000-700,000 ($780,000-1.2m). Though hardly a subsistence wage, it is far less than the stars pulled in the dotcom glory days. And this may be as good as it gets.

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Economist.com FINANCE & ECONOMICS

Investment in South Africa

An eye on the rand

Dec 8th 2005 | JOHANNESBURG
From The Economist print edition

Explaining South Africa's cost of capital

UNTIL recently, South Africans were bracing themselves for a rise in interest rates. But that worry has passed, and on December 8th the Reserve Bank left rates unchanged, at 7%, as most people had expected. Although rates are the lowest for more than 20 years, only a few days earlier the OECD had published a study* arguing that the cost of capital in South Africa was relatively high.

The study finds that South African companies could expect equity to cost about 15.5% last year, compared with 8.5% or so in the United States or Britain. The gap was explained not so much by a difference in equity risk-premiums as by South Africa's higher government-bond yields, which in turn pushed up yields on corporate debt and the cost of equity. It might have been kinder to compare South Africa with other developing countries, where capital is unlikely to be any cheaper. But the market is not always kind; and big South African companies such as Anglo American, SABMiller and Old Mutual have moved their main listings to London, where capital is more abundant and less dear.

Poor countries generally have to pay more than rich countries to borrow in international capital markets, because investors see a higher risk that they might not be repaid in full. South Africa, though, is in a better position than most developing countries, being one of the few able to borrow long-term in its own currency abroad as well as at home. Most have to borrow in dollars (or something equally respected) because investors fear devaluation.

Even so, the study estimates that currency risk explains more than 90% of the spread between an international benchmark bond, such as ten-year American Treasuries, and the South African equivalent. Compared with, say, Latin America, a low proportion of the overall risk premium stems from a fear that the government might do something to frighten investors away.

South Africa's authorities seem wise to the difficulties a falling rand might cause. The Reserve Bank has been building up foreign-exchange reserves, helping to ease concerns about a sudden depreciation. It has also kept its promise to maintain core inflation between 3% and 6%: the rate is now 4.4%. The budget deficit has also been kept under control.

For such reasons the study may already be a little out of date. Rating agencies have been upgrading South African debt for a few years now, and the yield on ten-year government bonds is now at 7.6%, around three percentage points above America's. Even so, investment remains disappointing. Brian Kantor, a strategist at Investec Securities, a bank, says investors have not yet digested the reality of lower capital costs and set unnecessarily high hurdle rates.

The authorities would be unwise to rest on their laurels. Although the rand has doubled in value since 2001 and become less volatile over the past couple of years, it could still be vulnerable. South Africa's currency is still susceptible to sentiment about emerging markets in general. Unusually, the rand is a popular hedging tool for foreigners. The average daily trade in rand has ballooned since 1998 to nearly $14 billion, most of it by non-residents.

Besides holding perceptions of currency risk in check, there may be further scope to shave the premium paid by South African companies. The study's authors argue that the corporate-bond market remains thin, keeping the cost of borrowing higher than it could be. Were capital cheaper still in the local powerhouse, the whole region would benefit.

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* “Reducing Capital Cost in Southern Africa”, edited by Martin Grandes and Nicolas Pinaud.

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Economist.com FINANCE & ECONOMICS

Distressed assets in India

Foreign investors welcome

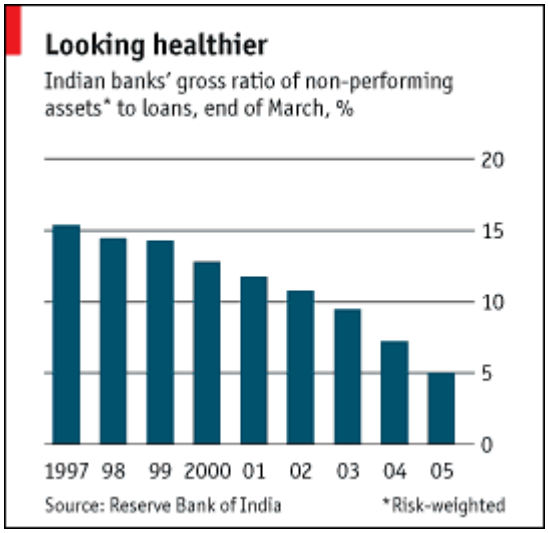
Dec 8th 2005 | MUMBAI
From The Economist print edition

As ever, only up to a point

INVESTORS from abroad appraising India's financial industries can probably agree on two things. First, that the potential for making money in this vast country, with its fast-growing economy and burgeoning middle class, is enormous. Second, that India's lingering bureaucratic and protectionist traditions still place frustratingly tight and complicated limits on foreign ownership. Bit by bit, though, the door is opening. Last month, it opened a little more, when India's government partially freed the market for distressed debt.

Foreigners may now take direct stakes of up to 49% in companies managing distressed assets. Portfolio investors may buy a total of 49% in an offer for sale, with single buyers limited to 10%. Investors are already sizing up their opportunity. Even before the new rules were announced, Actis, a British private-equity firm, had sought permission to set up an asset-reconstruction company; HSBC and Standard Chartered, big banks, have also shown interest.

On the face of it, India does not have a great volume of bad loans to manage. They amount to 595 billion rupees ($13.6 billion) or about 5% of all banks' loans, and in recent years this ratio has been declining (see chart). About four-fifths of these loans are owned by public-sector banks. Standard & Poor's, a rating agency, estimates that if parts of the banks' restructured assets and foreclosed properties are added, their bad-loan ratio might have been 8-10% at the end of March, compared with 31-35% for Chinese banks three months before.



However, provisions for bad loans eat away a large chunk of the banks' profits. Their combined provisions so far have amounted to 355 billion rupees, not a great deal less than their post-tax (and post-provision) profits for the past two years, of 430 billion rupees. Bad-loan provisions have risen sharply, following the introduction of tighter rules. Since March last year, loans in default for more than 90 days are treated as sick; the previous rule allowed 180 days. Since March this year, banks must increase provisions against a bad loan the longer it stays on the books.

The cost of these and other new rules is persuading more banks to sell loans. Moreover, because interest rates are starting to rise, their margins are being squeezed. And demand for new loans has, despite the rising cost of credit, picked up smartly this year: money locked up in provisions could be put to more profitable use.

Allowing foreigners to buy dud loans should thus bring welcome cash to the banks. At present they get none for what they sell to the Asset Reconstruction Company (Arcil), the only such firm in

existence. They are paid security receipts, which are similar to units in a mutual fund, for the discounted value of their assets until Arcil recovers the loan. They cannot sell these because Indian mutual and pension funds may not buy securities below investment grade. Letting in foreign portfolio investors should help start a secondary market for distressed loans, says Rajendra Kakker, Arcil's chief executive.

Some say the rules may prove too restrictive to attract large foreign investments. Jayesh Mehta, who heads debt investments at DSP Merrill Lynch, pointing to the experience of countries such as South Korea, thinks that foreigners interested in the risky bad-loan business are likely to want controlling stakes.

Others are more optimistic. WL Ross, an American private-equity firm, teamed up with HDFC, India's largest mortgage lender, in October to invest in distressed Indian loans. Its eponymous boss, Wilbur Ross, cites India's “new restructuring laws and a well-developed legal system” as reasons why it finds the prospect attractive.

Fears that foreigners would scoop Indian assets on the cheap may lie behind the restrictions. Those fears are overblown: in East Asia, the collateral on bad loans was often property, the price of which soared when economies recovered; in India, collateral is largely less bouncy industrial assets. Overblown the fears may be, but they persist nonetheless.

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Economist.com FINANCE & ECONOMICS

Global house prices

Hear that hissing sound?

Dec 8th 2005
From The Economist print edition

Our latest update of *The Economist's* global house-price indicators

THE air is slowly leaking from the global housing bubble. In most of the countries that *The Economist* tracks each quarter the pace at which house prices are climbing has slowed over the past year. An overwhelming majority of experts are still predicting a soft landing with no drop in prices. But property in many countries is so overvalued that even if prices do not fall, they could stagnate for up to a decade.

America's market has remained hot for longer than most, but even it now seems to be coming off the boil. The 12-month rate of house-price inflation slowed to 12% in the third quarter of 2005, from 14% in the second. Prices of new homes, however, rose by only 1% in the year to October, down from 16% in early 2004. A glut of new building is forcing developers to cut prices. The best signal of a further slowdown to come is the increase in the stock of unsold homes. The number of existing homes on the market was equivalent to 4.9 months' sales in October, up from 3.8 months' sales in January.

***The Economist*'s house-price indices**

% change

	Q3 2005*	Q3 2004	1997-2005
	on a year earlier		
South Africa	15.8	34.5	271
New Zealand	14.5	16.4	79
Denmark	14.3	9.7	73
France	14.2	15.5	100
Hong Kong	14.1	31.2	-43
Spain	13.4	16.8	150†
United States	12.0	13.0	85
Sweden	9.5	9.8	98
Belgium	9.4	10.9	71
Italy	7.3	9.7	81
Ireland	7.2	11.5	208
China	6.6	9.9	*na*
Netherlands	5.6	2.9	85
Canada	4.4	6.9	50
Singapore	3.3	*nil*	*na*
Britain	2.4	19.3	166
Switzerland	1.3	2.2	13
Australia	1.0	8.2	112
Germany	*na*	-1.3‡	*nil*
Japan	-4.7	-6.0	-30

*Or latest †New series ‡2004 average

Sources: ABSA; Bulwien; ESRI; Japan Real Estate Institute; Nationwide; Nomisma; NVM; OFHEO; Quotable Value; Stadim; Swiss National Bank; government offices

For a clue on where prices are heading, American homeowners should keep a close eye on Britain and Australia, where housing bubbles started to deflate in 2004. In Britain the Nationwide building society's price index has risen by only 2.4% over the past 12 months; in the summer of 2004 it was clocking up annual growth of more than 20%. Two other surveys, published by Hometrack and the Royal Institution of Chartered Surveyors, suggest that prices have in fact fallen over the past year. This week one British lender said that it would no longer offer buy-to-let mortgages on new properties.

The downturn in the Australian market has now spread beyond Sydney, where prices are already at least 10% below their peak. In the third quarter prices also fell in Melbourne, Brisbane, Hobart and Canberra. Nationally, average prices increased by only 1% in the year to the third quarter. In real terms, they fell.

House-price inflation has also eased in France, Spain, Italy and Ireland. However, Japan's 14-year slide in house prices may at last be nearing an end: prices in central Tokyo are now rising,

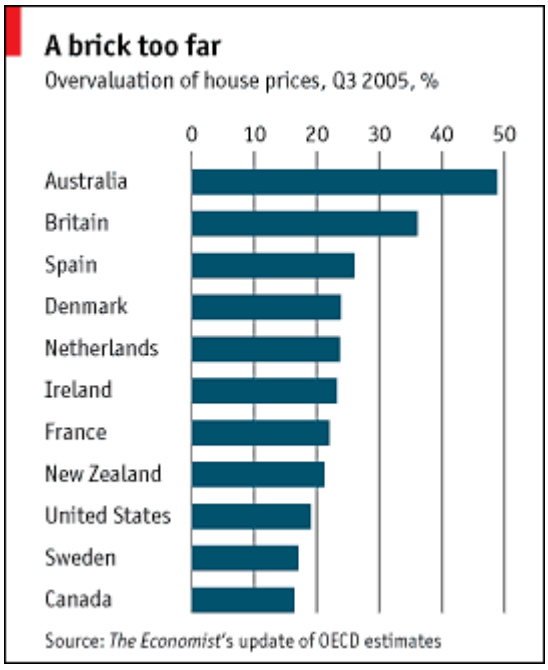
although the national average is still slipping and is now 40% below its peak in 1991.

Japan shows what can happen when home prices lose touch with reality. But exactly how overvalued are property markets elsewhere? A recent report on the rich world's housing markets by the OECD concludes that Australia has the most over-valued housing market, with prices 52% above their “correct” level. Next in line is Britain, where prices are 33% overvalued.

To judge the fair value of homes, the OECD uses the ratio of prices to rents, which is a sort of price-earnings ratio for housing. If prices are too high relative to rents, potential buyers will rent not buy, eventually pushing down real prices. In Australia this ratio is 70% above its average level over the period since 1970.

However, a higher ratio of house prices to rents may be justified by low interest rates, which make it cheaper to buy a home. The OECD tries to calculate the “user cost” of home ownership, which in addition to interest rates takes account of tax relief, property taxes, maintenance costs and expected inflation. It then compares the actual ratio of prices to rents with a “fundamental” ratio based on user cost. It is by this gauge that the OECD finds Australian property to be 52% too dear. It concludes that only Britain, the Netherlands and Ireland also have significantly overvalued housing (ie, by 15% or more). Spain is modestly overvalued, but America, France, Sweden and New Zealand look reasonably close to fair value. Homes in Germany and Japan are undervalued by more than 20%. So is *The Economist* wrong to talk about a global housing bubble?

One problem with the otherwise excellent OECD study is that its numbers are out of date. It is based on the average for 2004, since when several markets have surged. Using our house-price indicators, we have updated the figures for the third quarter of 2005. For instance, American prices are now 15% higher than the average for last year while rents have risen by 3%, so the ratio of house prices to rents has risen by 12%. Using the OECD's method, this suggests that housing is now 14% overvalued. If we also adjust for the rise in the mortgage rate since 2004, the American market is almost 20% overvalued.



The chart above shows our updates for other countries (outside America interest rates have barely altered, so we have adjusted the figures only for changes in prices). France, Spain, Denmark, Sweden and New Zealand also now look significantly overvalued. Germany and Japan (not shown) are still notably undervalued.

These estimates are highly sensitive to changes in interest rates, especially in euro-area economies, such as Ireland and Spain, where rates are very low (and where most mortgages are at variable rates). A rise of one percentage point (including the quarter-point rise announced by the ECB last week) could make Irish homes overvalued by as much as 50%.

Commentators in Britain and Ireland like to talk about the housing market “stabilising” after years of froth. But when you are teetering on a high wire, stability is difficult to maintain. Without a decline in prices, it could take as long as a decade, at current rates of consumer-price inflation, for British property prices to get back to fair value. A decade of falling real prices is not something to relish.

Economist.com FINANCE & ECONOMICS

Economics focus

Matchmakers and trustbusters

Dec 8th 2005
From The Economist print edition

"Two-sided" industries intrigue economists and incite regulators

THE first time anyone paid with plastic, they used cardboard. In February 1950 Frank McNamara paid for a meal at Major's Cabin Grill in New York with his newly invented Diners Club card, a small piece of cardboard. The event is known by some in the industry as the First Supper.

The supper would never have taken place had McNamara not solved an awkward conundrum: restaurants would not accept his cards unless restaurant-goers wanted to use them; but diners would not hold the cards unless restaurants accepted them. He broke this bind by giving his cards away free at first to well-heeled Manhattanites. With some of New York's big spenders on board, McNamara could then tempt restaurateurs to accept the card, and even to give him a cut of the tab.

Diners Club cards are one example of what economists call a "two-sided" business. To make a success of his scheme, McNamara had to court both sides of the market—restaurants and diners—without ruining himself in the process. There are many other examples, big and small, of such matchmaking: PC operating systems must attract software users and software designers; TV channels court advertisers and viewers; singles bars match the lovelorn of both sexes.

Companies in these markets adopt different strategies to overcome the same intrinsic problems: how to get both sides on board, how to keep them both happy and how to encourage them to take advantage of each other. The mighty Microsoft, for example, had to go one step further than McNamara in order to get Windows going. After struggling to persuade enough people to write programmes for it, Bill Gates ordered his own staff to create applications instead. It was as if McNamara had opened his own restaurants to get his Diners Club card accepted.

Economists have started to think systematically about these businesses only in the past few years. The most elegant exposition of this research is by Jean-Charles Rochet and Jean Tirole, of the University of Toulouse*; one of the most entertaining is by David Evans†, now of LECG, a firm that provides testimony in antitrust cases, among other things.

In a one-sided, competitive market, economists know that firms maximise their profits by setting their price equal to the cost of producing an additional unit. They also know that a one-sided monopolist should enjoy a mark-up of price over cost, fat or thin depending on how price-sensitive its customers are. But these principles are of little help in analysing two-sided markets. Even when these businesses are up and running, what they charge each side of the market may bear little or no relation to the cost of serving it. Singles bars often admit women for nothing, and sometimes give them free drinks, even though the cost of providing them with loud music, dim lighting and alcohol is the same as for men.

The computer game industry, to take another example, sells its consoles at or below cost, while making money from games that can be reproduced for a song. In this, it follows the familiar model

of companies that sell underpriced razors and overpriced blades. But there is more to it than that. Microsoft, for instance, knows that everyone who buys its Xbox 360 adds to the console's appeal to independent game publishers. The games these publishers conjure up then make the console more attractive to other customers. This makes Microsoft's pricing decision tricky indeed. How much it charges one side of the market—people who play games—has a knock-on effect on demand on the other—people who develop them—which has, in turn, an indirect impact on the first side. This, notes Mr Evans, is more difficult than “setting the price of toothpaste”.

Mysterious to economists, matchmakers look suspicious to trustbusters. When a newspaper is given away free, for instance, it looks as if it is preying on its rivals' markets. But free news may be one way in which the paper's advertisers can “pay” readers for their attention. Payment cards have been consistently controversial. They were the subject of an American lawsuit in 1979, a European Commission investigation in 1997, and, more recently, close scrutiny by consumer watchdogs in Britain and Australia.

Attacked from all sides

At stake is the “interchange fee”. Visa and Mastercard claim thousands of banks as members. One bank might give a Visa to a customer; a second bank might recruit a retailer to the brand. When the cardholder pays the retailer with plastic, someone has to bring the two banks together. The retailer's bank pays the cardholder's bank an interchange fee to settle the transaction.

Retailers complain that this fee is too high. The competition authorities in Australia and Britain are inclined to agree with them. But we have no way of knowing if they are right, argue Mr Evans and Richard Schmalensee, of MIT's Sloan School of Management. Prices in two-sided markets are often uneven, and the side that pays more will always complain—be they shopkeepers or men queuing outside nightclubs. But prices can be skewed for good reasons. The more women who show up at a nightclub, the more men will follow. From the club's point of view, women earn the free drinks they are given. If interchange fees are reduced, banks may take a smaller cut from merchants, but a larger cut from cardholders. These markets are like a seesaw: lower the price on one side, and it may well rise on the other.

Economists are still learning how two-sided businesses set their prices, and they still don't know where the see-saw should settle. But that has not stopped the regulators from adding their weight to one end.

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* “Two-sided Markets: An Overview”. IDEI working paper

† “The Antitrust Economics of Two-sided Markets”

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Correction:Mercantile & General Re

Dec 8th 2005
From The Economist print edition

In a recent article on reinsurance (“Top of the pile”, November 26th) we incorrectly called Mercantile & General Re, acquired by Swiss Re in 1996, an American company. We should have described it as British, incorporated in Edinburgh. Sorry.

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Economist.com SCIENCE & TECHNOLOGY

Climatology

Changing science

Dec 8th 2005
From The Economist print edition

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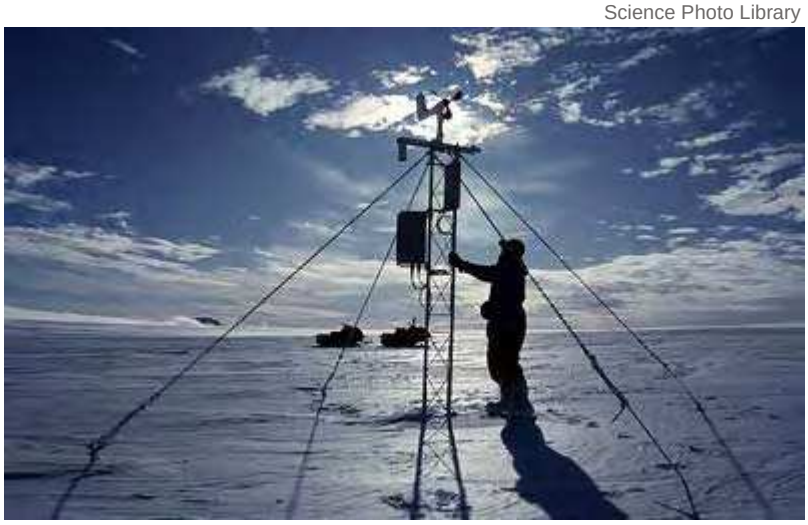


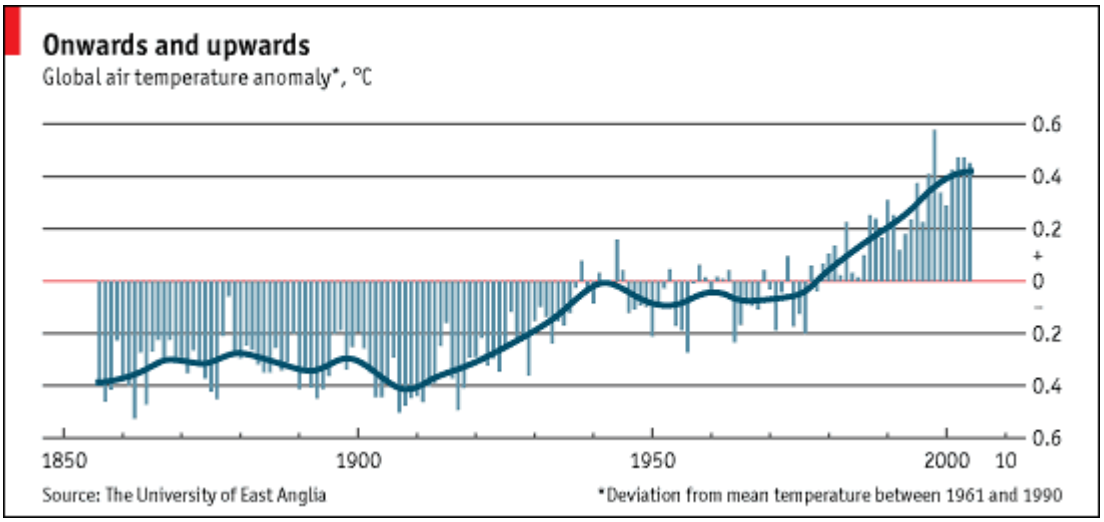
As delegates from around the world meet in Montreal to discuss climate change, what science should inform their deliberations?

Get article background

THE climate changes. It always has done and it always will. In the past 2m years the temperature has gone up and down like a yo-yo as ice ages have alternated with warmer interglacial periods. Reflecting this on a smaller scale, the 10,000 years or so since the glaciers last went into full-scale retreat have seen periods of relative cooling and warmth lasting from decades to centuries. Against such a noisy background, it is hard to detect the signal from any changes caused by humanity's increased economic activity, and consequent release of atmosphere-warming greenhouse gases such as carbon dioxide.

Detection is, nevertheless, important, because the climate seems particularly changeable at the moment. Moreover, forming sensible policies towards climate change, as the United Nations Climate Change Conference in Montreal aspires to do, depends on knowing what is going on. Fortunately, the past year has seen the publication of a series of results that help to disentangle signal and noise.

The first, and most basic, is the continuation of the warming trend at the Earth's surface that has been happening since the early 20th century. The chart on this page, assembled by Britain's Hadley Centre and the University of East Anglia, shows that the ten years to 2004 were the warmest decade since reliable measurements began in the mid-19th century. Estimates of earlier temperatures suggest it may have been the warmest in the past millennium.



The second result is that the Arctic, a place where any warming trend would be amplified by changes in local absorption of heat as the ice melts, does indeed show signs of rapid warming. A report published this year as part of the Arctic Climate Impact Assessment showed that the amount of sea ice has fallen by 8% in the past 30 years, and also found signs that Greenland's ice cap is melting more rapidly than in the past.

The third finding is the resolution of an inconsistency that called into question whether the atmosphere was really warming. This was a disagreement between the temperature trend on the ground, which appeared to be rising, and that further up in the atmosphere, which did not. Now, both are known to be rising in parallel.

The fourth is a study by researchers at the Scripps Institution of Oceanography, in California, into changes in the way the world's oceans have warmed up at different depths over the past 65 years. These match climate models' predictions of what happens when warming is induced by greenhouse gases better than they match predictions of the result of variations in the sun's activity, the main alternative hypothesis for what might be causing the climate to change.

The fifth is the observation in reality of a predicted link between increased sea-surface temperatures and the frequency of the most intense categories of hurricane, typhoon and tropical storm.

And the sixth, as reported in last week's *Economist* (see article), is an observation that ocean currents in the North Atlantic are faltering in ways that computer models of the climate previously suggested would happen in response to increased temperatures.

The signal, in other words, looks strong. That said, there are still a number of uncertainties. For instance, the solar hypothesis is not yet dead. A few researchers who agree the data show a warming trend nevertheless argue that this may be caused not by man but by nature, in the form of minute increases in the sun's heat output. That output is known to vary during the course of the 11-year sunspot cycle, as well as over the longer term, and although such changes have not been matched to temperature changes in the way that rises in the level of greenhouse gases have been, they may still be making a contribution.

Another issue is that a second type of pollutant, aerosols such as the minute sulphate particles that form when sulphurous fuel is burned, promote the formation of clouds. These reflect sunlight away from Earth and thus oppose the effect of greenhouse gases. Some have seen this as a possible counterbalance and, indeed, such “dimming” has been noticed in several parts of the

world. However, yet another study published this year suggests the dimming is going away as anti-sulphur pollution-control measures kick in.

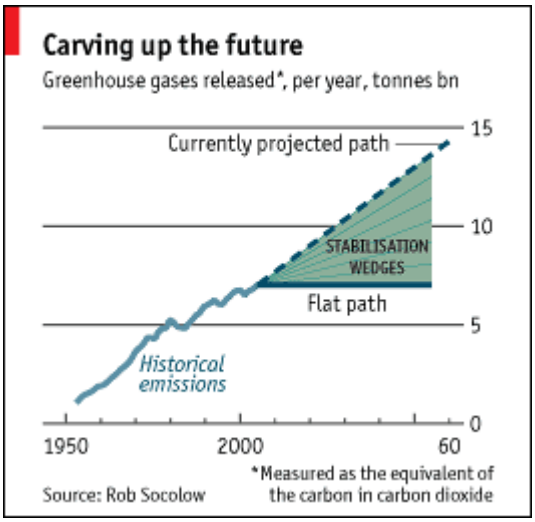
Perhaps the most important uncertainty, though, is that caused by a lack of enough good-quality, long-term, internally consistent data. Even the industrialised parts of the world, Europe and North America and their adjacent seas, have been studied properly for only a century and a half. Too much climate science relies on drawing conclusions from patchy information. It is therefore a nice irony that only under the presidency of George Bush, the *bête-noire*-in-chief of many environmentalists, has a unified Earth Observation System of satellites, ocean buoys, terrestrial weather stations, balloons and aircraft started to take shape. Though the system involves some 60 countries, the moving spirit is America's National Oceanic and Atmospheric Administration.

Watcha gonna do about it?

That the climate is warming now seems certain. And though the magnitude of any future warming remains unclear, human activity seems the most likely cause. The question is what, if anything, can or should be done.

One option, of course, is to do nothing—or at least nothing beyond eliminating the sort of economic nonsense, such as subsidising coal mining, that not only encourages global warming (because coal is the most carbon-rich fuel around), but wastes money. Indeed, it is often forgotten that parts of the world would benefit from a hotter climate. In particular, the warming of the Arctic is opening sea lanes that early European navigators avidly sought but were unable to penetrate. The clearing of sea ice will also permit oil-drilling in places hitherto off-limits. And a gentle warming should extend the crop-growing season in places such as Canada.

Too rapid or too great a warming, though, risks serious, unpleasant and in some cases irreversible changes, such as the melting of large parts of the Greenland and Antarctic ice caps. There is, to put it politely, a lively debate about how far the temperature can rise before things get really nasty and how much carbon dioxide would be needed to drive the process. Unfortunately, existing models of the climate are not accurate enough to resolve this dispute with the precision that policymakers would like.



If greenhouse-gas emissions are to be capped, however, a mixture of political will and technological fixes will be needed. Political will is the subject of the Montreal meeting, which is seeing the opening shots about what, if anything, will replace the Kyoto climate-change protocol after 2012. But a good way to think about the technology, known as “stabilisation wedges”, was recently invented by Rob Socolow, of Princeton University.

Dr Socolow observes that on current trends the amount of greenhouse gases emitted by human activity will double over the next 50 years. Kyoto, a preliminary agreement, will make but a small difference. He calls the space on the graph between the trend line and the line representing stability at current levels the stabilisation triangle. That triangle can, in turn, be divided into a number of wedges, each of which represents a way that carbon-dioxide emissions might be curbed. This way of looking at things, he observes wryly, decomposes a heroic challenge (eliminating the emissions in the stabilisation triangle) into a limited set of merely monumental

tasks.

What constitutes a wedge is, to a certain extent, a matter of taste. Dr Socolow lists six: greater efficiency, decarbonised electricity, decarbonised fuels, fuel displacement by low-carbon electricity, methane management (methane is a more potent greenhouse gas than carbon dioxide) and natural carbon sinks. Each wedge then breaks down into sub-wedges (for example, decarbonised electricity includes nuclear power, renewable energy, substituting coal with less carbon-intensive natural gas, and capturing and storing carbon dioxide from power stations).

As can be seen from this list, a lot of Dr Socolow's sub-wedges rely on the wider deployment and sharpening up of existing technologies, such as ways of generating electricity from renewable energy sources (see article). They also rely on building what might be called “emissions awareness” into a huge range of things that either generate or consume power—a fact that some firms see as a new business opportunity.

The wedge approach also encourages conceptual shifts. The more hair-shirt sort of environmentalism emphasises the idea of moving away from fossil-fuel use (though not, heaven forfend, towards nuclear power). Wedge theory, if it may be so described, balances that with thinking about ways to continue using fossil fuels while keeping the carbon dioxide that generates out of the atmosphere.

One way to do this is to extract it at the power station and inject it into porous rocks deep underground, from which it cannot easily escape. Some oil firms do this already to carbon dioxide that forms part of raw natural gas. Statoil, Norway's national oil company, has had such a “carbon sequestration” project in the North Sea for almost a decade and BP now has a similar project in Algeria.

Power-station extraction could either use the exhaust gases or be pre-emptive, by reacting the fuel with water in a process called steam reformation. This yields hydrogen, which is then used to make the electricity, and carbon dioxide. America's Department of Energy is sponsoring a series of projects designed to see if either of these techniques can succeed without raising costs too much, and signed a deal to build a prototype coal-based reformation plant this week.

Then comes Dr Socolow's last wedge. One other carbon-sequestration technology exists, and it is a tried and tested one—photosynthesis. Plants form themselves literally out of thin air, combining carbon dioxide, water and the energy of sunlight to give themselves substance. Photosynthetic carbon sequestration is a game that anyone, rich or poor, can play.

According to David Kaimowitz, of the Centre for International Forestry Research, an intergovernmental organisation, 15-20% of the greenhouse-gas emissions caused by human activity are the result of the degradation and destruction of forests. Simply replanting the equivalent of what is being lost would thus make a useful sub-wedge. Indeed, an annexe to the Kyoto agreement allows rich countries to pay poor ones to do just that, instead of cutting their own emissions, although oddly there is no incentive not to cut the trees down in the first place. Changing that is one item that has garnered support at Montreal—and one that even the most sceptical environmentalist would surely applaud.

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Economist.com SCIENCE & TECHNOLOGY

Computer viruses

Fighting fire with fire

Dec 8th 2005
From The Economist print edition

A new idea for immunising computers against viruses

COMPUTER viruses, the self-replicating programs that infect workstations and cripple networks, are a hazard to business. The “I love you” worm, which wreaked havoc on May 4th 2000, spread by sending a copy of itself in an e-mail to everyone in every address book it encountered. It took just a few mugs in each company to open the attached “love letter” to generate thousands upon thousands of messages that overwhelmed systems round the world. The cost to business was estimated to be $10 billion.

The “I love you” worm was exceptional, but run-of-the-mill viruses are a constant nuisance. However, a paper published in this month's *Nature Physics*, by Eran Shir of Tel-Aviv University in Israel and his colleagues, has suggested a new way of dealing with them.

A virus spreads by infecting its host, reproducing itself and moving on. Firewalls and other sorts of anti-virus software—computer programs that attempt to identify, thwart and eliminate computer viruses and other malicious bits of code such as spyware—are one line of defence. These programs search files for known viruses and monitor what is running for suspicious behaviour. If a known virus is encountered, it can be stopped.

But new viruses are continually being created. As soon as a new virus is detected, a second line of defence would be to pass information about it between computers quickly, before they become infected. And that is what Mr Shir is proposing. Moreover, the researchers believe it takes a virus to stop a virus. They would like to propagate the vaccine as an epidemic.

As in the biological world, a big problem with vaccines is that they cannot be created until the virus they seek to stop spreading has emerged. Vaccines are thus always one step behind. What Mr Shir and his colleagues outline is a plan to accelerate the spread of a vaccine in a way that allows it to overtake the virus.

Their strategy uses a series of “honey pots”. These pieces of software attract viruses and are employed by anti-virus firms to pick new threats up quickly. The researchers' idea is to embed these honey pots within a network so that any virus spreading through the network would be likely to reach them promptly. The honey pots would then be linked to each other in a separate, overlying network that allowed only vaccines to pass across it.

This separate network would act as a by-pass, enabling the vaccine to overtake the virus and reach uninfected computers first. A honey pot would automatically identify a new virus, extract its signature and pass this information—the vaccine—to other honey pots using the overlying network. The honey pots would share this information with other computers on the network. All uninfected computers would then be able to recognise the new virus as dangerous, and refuse it entry.

The strategy would become more effective as the size of the network grew. For example, for a

network of 50,000 computers, if 0.4% of them were honey pots, some 5% of computers would become infected by a virus before they were immunised. If there were 200,000 computers, the infection rate would fall to about 1%. For 200m computers (about the number now in America), less than a thousandth of a per cent would be infected. The savings to business could be great indeed.

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Economist.com SCIENCE & TECHNOLOGY

Animal behaviour

Bats and balls

Dec 8th 2005
From The Economist print edition

Bigger testes mean smaller brains

MEN are often accused by women of, to put it bluntly, having their brains in their balls. A joke, of course. But perhaps not as much of one as people might like to think. For a study of bats carried out by Scott Pitnick, of Syracuse University in New York State, and his colleagues, suggests that there really is a trade-off between the two organs.

With about 1,000 species, bats are the second-largest group of mammals (rodents are top), so there is plenty of material for interspecies studies. Dr Pitnick's project, published in this week's *Proceedings of the Royal Society*, looked at brain size and testis size in 334 of those species. Sadly, the team's research budget did not allow it to jet around the world and gather data directly. Instead of visiting bat caves, the scientists visited their universities' libraries. But bats are a well-studied group, and so the team was able to gather pertinent data on the anatomy and behaviour of a third of them.

The hypothesis they were testing came in two parts. The first was that in any given species, the average male's testis size as a fraction of body weight will depend on the behaviour of that species' females—in particular, how promiscuous those females are. The second was that, given that brain tissue and testis tissue are among the most expensive to maintain physiologically, and that bats have a very tight energy budget, bigger balls would result in smaller brains.

The team knew, from work done some time ago, that the first part of their hypothesis is true in primates. Greater promiscuity in females does, indeed, lead to bigger testes, presumably because a male needs to make more sperm to have a fighting chance of fathering offspring, if those sperm are competing with sperm from a lot of other males. Gorillas, which discourage dalliances between other males and the females of their harem, have small testes. Chimpanzees, among whom females mate widely, have large ones. Human testes lie between these two extremes.

And so it proved in bats. Bat testes range from 0.11% of body weight in the African yellow-winged bat, to a whacking 8.4% in the generously endowed Rafinesque's big-eared [*sic*] bat. (The largest primate testes by contrast, those of the crab-eating macaque, are a mere 0.75% of body mass.) And the small balls were indeed found in species where females were monogamous (though they might be members of harems), while the large ones were found in species where females mated widely.

Brain size, by contrast, and just as predicted, varied in the opposite direction. Nor was it dependent on the level of male promiscuity. In the bat world, it seems that you do not have to be cleverer to be a libertine than to be a faithful husband. But if the girls are putting it about, it is better to be virile and dim, than impotent and smart.

Books of the year 2005

Peerless pages

Dec 8th 2005
From The Economist print edition

Biography, history, politics, science, business or purely imaginative fiction—there is something for everyone in this round-up of the year's best books

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Biography

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The Pursuit of Victory: The Life and Achievement of Horatio Nelson. By Roger Knight. *Basic Books; 874 pages; $35. Penguin/Allen Lane; £30*

Drawing more thoroughly than any previous writer on the material uncovered by the Royal Naval Museum's "The Nelson Letters Project", Roger Knight paints a wonderfully clear portrait of a complex man, placed squarely in his own time. This superb work is the definitive Nelson biography.

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The Prince of the City: Giuliani, New York and the Genius of American Life. By Fred Siegel. *Encounter Books; 408 pages; $26.95*

Fred Siegel's gripping and persuasive account of the reign of Rudolph Giuliani analyses how New

York's mayor transformed a city in seemingly irresistible decline by confronting the conventional wisdom of two special-interest groups, the public-sector unions and Manhattan's liberals.

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Gannibal: The Moor of Petersburg. By Hugh Barnes. *Profile Books; 300 pages; £16.99. To be published in America as "The Stolen Prince" by Ecco in June 2006*

Alexander Pushkin's great-grandfather was an African slave, adopted by Peter the Great, who became Russia's Othello. An intriguing biography of a fascinating subject.

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Mao: The Unknown Story. By Jung Chang and Jon Halliday. *Knopf; 814 pages; $35. Jonathan Cape; £25*

A highly controversial biography, more than a decade in the making, by the author of "Wild Swans" and her husband, which portrays Mao as a ruthless and bloody megalomaniac of unremitting evil.

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Matisse the Master—A Life of Henri Matisse: The Conquest of Colour, 1909-1954. By Hilary Spurling. *Knopf; 512 pages; $40. Hamish Hamilton; £25*

Matisse's detractors used to praise his bourgeois respectability while condemning his art. In the second volume of her life of the artist, Hilary Spurling proves just how much Matisse's artistic ideas cost him and his family. No more Mr Nice Guy.

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History

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Imperial Reckoning: The Untold Story of the End of Empire in Kenya. By Caroline Elkins. H*enry Holt; 496 pages; $27.50. Published in Britain as "Britain's Gulag"; Jonathan Cape; £20*

A controversial account of how Britain committed men, arms, the courts and the hangman to defend the political and economic status quo in 1950s Kenya and to destroy the nascent Kikuyu independence movement. The effort failed, but left a bitter memory.

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Bury the Chains: Prophets and Rebels in the Fight to Free an Empire's Slaves. By Adam Hochschild. *Houghton Mifflin; 468 pages; $26.95. Macmillan; £20*

In his account of the movement to end the slave trade in the British empire, Adam Hochschild spares us nothing of the awfulness of the Atlantic traffic and the cruelties that awaited slaves in the sugar plantations of the West Indies. But his true focus is the courage and moral clarity of the

anti-slave campaigners. Not an enjoyable read, but a stirring and unforgettable one—which may be the greater achievement.

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A Great Improvisation: Franklin, France, and the Birth of America. By Stacy Schiff. *Henry Holt; 512 pages; $30*

An ebullient account of Benjamin Franklin's years spent raising money, men and arms from the French king. How a new and disorganised country with very little leverage wrangled so much from a sceptical Europe is one of the great stories of early American history. Stacy Schiff tells the tale remarkably well.

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Sons of the Conquerors: The Rise of the Turkic World. By Hugh Pope. *Overlook; 432 pages; $35. Duckworth; £20*

In a quest that takes him from the grim battlefronts of Armenian-controlled Nagorno-Karabakh in Azerbaijan to secret encounters with Turkic-speaking Uighur nationalists in China, Hugh Pope seeks to unearth the common strands that link the 140m Turkic speakers across the globe. An ambitious book, and a highly accomplished one.

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A Life in Secrets: The Story of Vera Atkins and the Lost Agents of SOE. By Sarah Helm. *Little, Brown; 496 pages; £20*

A thorough and fascinating reconstruction of one of the less heroic episodes of the second world war, in which more than three dozen young women were sent by Maurice Buckmaster, an incompetent official in Britain's Special Operations Executive, to be agents behind enemy lines. Almost all of them were swiftly killed.

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Rough Crossings: Britain, the Slaves and the American Revolution. By Simon Schama. *BBC Books; 407 pages; £20. To be published in America by HarperCollins in May 2006*

Rather than take the easy route, Simon Schama deploys all his energies in the service of an episode that did not even rate a footnote in his panoramic “A History of Britain”. The noble but half-baked attempt to plant a colony of freed American slaves in the west African state of Sierra Leone at the end of the American war of independence makes for a thought-provoking tale.

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Agincourt: The King, the Campaign, the Battle. By Juliet Barker. *Little, Brown; 460 pages; £20*

In her account of the battle of Agincourt, Juliet Barker never forgets that war is fought by human beings. All the terror, dust and dirt of military conflict are present in this quite wonderfully vivid, clear and involving book that is destined to become the classic account of the epic 1415 encounter between the English and the French.

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The Rise of American Democracy: Jefferson to Lincoln. By Sean Wilentz. *Norton; 992 pages; $35*

A dense, authoritative and well-written study about the long struggle to achieve democracy in America. From the Alien and Sedition Acts and the Missouri Compromise to the election of Abraham Lincoln, every development is given careful study by Sean Wilentz, a Princeton University history professor.

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Politics and current affairs

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Setting the People Free: The Story of Democracy. By John Dunn. *Atlantic Books; 246 pages; £16.99. To be published in America by Grove Atlantic in January*

By blending history and ideas, and bringing alive all the contemporary arguments for and against democracy, particularly in the American and French revolutions, John Dunn offers a triumphant portrait of how government by the people first began and what it has become. A rich and subtle essay.

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Radicals in Robes: Why Extreme Right-Wing Courts are Wrong for America. By Cass R. Sunstein. *Basic Books; 272 pages; $26 and $15.50*

Behind the façade of agreement about basic principles lie deep disagreements about the meaning of the American constitution, the role of the Supreme Court and the direction in which America itself should be moving. A concise and illuminating guide.

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Night Draws Near: Iraq's People in the Shadow of America's War. By Anthony Shadid. *Henry Holt; 448 pages; $26*

It is not easy to understand fully what is going on in Iraq; still less to make any accurate predictions about how it will end. Thank goodness, then, for those reporters, both Iraqi and western, who are prepared to take risks in search of a more nuanced reality. Anthony Shadid of the *Washington Post* is one of the best.

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The Assassin's Gate: America in Iraq. By George Packer. *Farrar, Straus and Giroux; 450 pages; $26. To be published in Britain by Faber and Faber in February*

A devastating critique of the way the American invasion of Iraq has been run, by one member of that tiny, ambivalent camp of pro-war liberals, who supported the overthrow of Saddam Hussein while also voting for Al Gore. A thoughtful expansion of the author's reports in the *New Yorker*.

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I Didn't Do It For You: How the World Betrayed a Small African Nation. By Michela Wrong. *HarperCollins; 448 pages; $25.95. Fourth Estate; £16.99.*

Harsh, inhospitable, and hotter than anyone can imagine, craggy mountainous Eritrea, clinging to the Horn of Africa, seems to offer nothing to speak of. But it has history; and what a history, as Michela Wrong's portrait clearly shows. “In fact,” says one Eritrean academic whom she quotes, “that's all it has.”

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In the Shadow of Swords: How Islamic Terrorists Declared War on Australia. By Sally Neighbour. *HarperCollins Australia; 432 pages; A$24.95*

A thoughtful contribution to the ever-expanding library of books on terror, Sally Neighbour's new book offers an insightful account of Australia's September 11th, the 2002 Bali bombing. Surely a book that deserves wider distribution.

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Economics and business

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Against the Flow. By Samuel Brittan. *Atlantic Books; 385 pages; £25*

A peerless economic and political commentator, 71-year-old Samuel Brittan makes the case, both moral and economic, for individuals over collectives, and for markets over coercion—ideas that put him at odds with conservatives as well as with liberals. This combination of essays defies all categories. Yet it all fits together, and quite brilliantly.

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Conspiracy of Fools: A True Story. By Kurt Eichenwald. *Broadway Books; 768 pages; $26*

Enron has become a byword for all that was wrong with American business at the start of this century. If you want to know why, this gripping account is the book for you.

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Freakonomics: A Rogue Economist Explores the Hidden Side of Everything. By Steven D. Levitt and Stephen J. Dubner. *William Morrow; 256 pages; $25.95. Penguin/Allen Lane; £20*

Many economists don't care whether sumo wrestling is fixed, or whether drug dealers prefer to live with their mothers. Steven Levitt proves that they should. This book is a delight; it educates, surprises and amuses.

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DisneyWar. By James B. Stewart. *Simon & Schuster; 592 pages; $29.95 and £20*

The contrast between Disney's fairytales for children and the personal hatreds and betrayals that play out at its headquarters in Burbank, California, could hardly be more striking. James Stewart lays bare the inner workings of the company in a history that is as much farce as it is a morality tale.

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The Origins of Value: The Financial Innovations that Created Modern Capital Markets. Edited by William N. Goetzmann and K. Geert Rouwenhorst. *Oxford University Press; 416 pages; $50 and £30*

An academic history of the development of financial markets, from the invention of interest and Roman shares to 20th-century bonds, this book has more attractive pictures than mind-boggling equations. Possibly the first book designed expressly for Wall Street coffee tables.

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The Search: How Google and Its Rivals Rewrote the Rules of Business and Transformed Our Culture. By John Battelle. P*ortfolio; 288 pages; $25.95. Nicholas Brealey; £16.99*

A compelling, if insufficiently critical, story of the internet search-engine company's rise to world domination. In addition to his colourful portraits of the company's founders, Larry Page and Sergey Brin, John Battelle offers provocative thoughts aplenty about where both the company and the information economy are heading.

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Medici Money: Banking, Metaphysics, and Art in Fifteenth-Century Florence. By Tim Parks. *Norton; 224 pages; $22.95. Profile Business; £15.99*

Tim Parks is a polymath among authors; a prolific novelist, translator, essayist and memoirist, as well as an authoritative writer about football. His portrait of Cosimo and Lorenzo de Medici, the two greatest celebrities in the history of banking, rivalled only by Nathan Rothschild, extends his range even further and is a model for all writers who want also to be economic historians.

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Science and technology

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Collapse: How Societies Choose to Fail or Survive. By Jared Diamond. *Viking Books; 575 pages; $29.95. Penguin/Allen Lane; £20*

Throughout history there are many examples of societies that have collapsed and never recovered. As sharp and readable as ever, Jared Diamond analyses the factors that cause these implosions, in a compelling synthesis of anthropology, archaeology, ecology and political science that is also a plea to save the environment. Food for the brain.

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The Weather Makers: The History & Future Impact of Climate Change. By Tim Flannery. *Text Publishing; 384 pages; A$32.95. To be published in America by Atlantic Books and in Britain by Penguin/Allen Lane, both in March*

Tim Flannery's Stygian warning about the dangers of ignoring climate change has united academics and politicians in Australia, where the book was published earlier this year. Stay ahead of the curve—and the coming brouhaha—by reading the book before it is published in America and Britain next spring.

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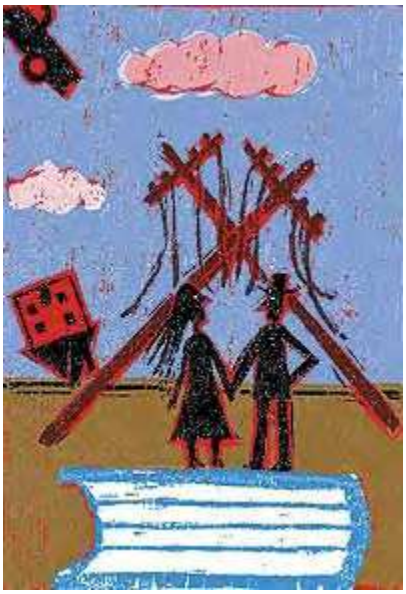

Parallel Worlds: A Journey Through Creation, Higher Dimensions, and the Future of the Cosmos. By Michio Kaku. *Doubleday; 448 pages; $27.95. Penguin/Allen Lane; £8.99.*

Using the latest astronomical data, Michio Kaku explores the possibility that we might one day make the journey from our universe to another, via wormholes and dimensional portals.

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Dr Peter Scardino's Prostate Book: The Complete Guide to Overcoming Prostate Cancer, Prostatitis, and BPH. By Peter T. Scardino and Judith Kelman. *Avery Publishing; 496 pages; $27.95. Published in Britain as "The Prostate: An Owner's Manual"; Michael Joseph; £14.99*

A detailed and well-presented guide to the function—and malfunction—of the prostate gland, by the surgeon who treated Vernon Jordan, James Robinson, General Norman Schwarzkopf and Rudolph Giuliani.

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Power, Sex, Suicide: Mitochondria and the Meaning of Life. By Nick Lane. *Oxford University Press; 368 pages; $30 and £18.99*

For 2 billion years, bacteria ruled the Earth without generating any real complexity—a condition that may still grip life on other planets. Then the union of two bacterial cells led to an evolutionary big bang, from which algae, fungi, plants and animals emerged. Full of startling insights into the nature and evolution of life as we know it.

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Fiction and memoirs

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The March. By E.L. Doctorow. *Random House; 384 pages; $25.95. To be published in Britain by Little, Brown in January*

A brilliantly imagined historical work about General William Tecumseh Sherman's vicious march through the American South, E.L. Doctorow's new novel portrays both the war itself—by far the

most lethal conflict that the United States has ever fought—and Sherman's depredations as inexorable and grotesquely gratuitous.

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A Short History of Tractors in Ukrainian. By Marina Lewycka. *The Penguin Press; 304 pages; $24.95. Penguin/Viking; £12.99*

The sluttish, rapacious blonde who is determined to marry the narrator's elderly widowed father brings a raw blast of reality from eastern Europe to a novel that has delighted audiences young and old. What you do with people you are supposed to like but don't trust or understand is the underlying conundrum of this comic feast in which the dialogue is entirely between educated people who lack a common language.

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Incendiary. By Chris Cleave. *Knopf; 256 pages; $22.95. Chatto & Windus; £10.99*

A working-class woman writes to Osama bin Laden, venting her feelings about the bombing that killed her husband and her young son. By turns funny, naughty and sad, Chris Cleave's first novel, which was published on the day of the London tube bombings, manages two crucial literary achievements: a captivating heroine and a highly original voice.

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The Third Woman. By Mark Burnell. *HarperCollins; 371 pages; £12.99*

This latest, fourth instalment in the turbulent career of Stephanie/Petra, the 21st-century female assassin with multiple identities, is Mark Burnell's best so far. If you like thrillers, this is as good as it gets.

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Brandenburg. By Henry Porter. *Orion; 448 pages; $24 and £10*

Set in the last few paranoid weeks of the communist world when the Stasi, East Germany's brutish intelligence organisation, and its thousands of informers could no longer prevent the rebellion that brought down the Berlin wall, “Brandenburg” is a minutely reconstructed evocation of the cold war at its nastiest, and a salutary reminder of what it was all about.

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The Year of Magical Thinking. By Joan Didion. *Knopf; 227 pages; $23.95. Fourth Estate; £12.99*

As writers, Joan Didion and John Gregory Dunne lived so closely together they often finished each other's sentences. After he died and their daughter lay on life support, Ms Didion began this literary portrait of a marriage and a life—in good times and bad—that will speak to anyone who has ever loved a husband, wife or child.

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Culture and digressions

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Edge of Empire: Lives, Culture, and Conquest in the East, 1750-1850. By Maya Jasanoff. *Knopf; 404 pages; $27.95. Fourth Estate; £25*

By tracing the collections of those who lived on the eastern frontiers of the British empire—and those who made them—Maya Jasanoff looks beneath the grand narratives of trade, power and resistance to uncover an intimate history of imperialism, changing our perceptions of the past.

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Italia Romantica: English Romantics and Italian Freedom. By Roderick Cavaliero. *I.B. Tauris; 246 pages; $35 and £20*

A historian and former curator of the Keats-Shelley house in Rome, Roderick Cavaliero has written a highly entertaining account of English views of Italy in the era just as the British were launching themselves on the path to imperial greatness and the Italians had become the sorry remnants of a once-great race.

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Shakespeare Goes to Paris: How the Bard Conquered France. By John Pemble. *Hambledon & London; 256 pages; $39.95 and £19.99*

So very Anglo-Saxon in his wit and wisdom, William Shakespeare was regarded as highly dangerous when he first became known to the French in the 1720s—an affront to taste and the values of classical drama. French hissing at its sharpest.

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Edge of the Orison: In the Traces of John Clare's "Journey out of Essex". By Iain Sinclair. *Hamish Hamilton; 384 pages; £16.99*

A psychogeographic exploration of the environmental damage which has been wrought on south-east England over the past two centuries. A magical addition to his three earlier volumes.

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The Oxford History of Western Music (six-volume set). By Richard Taruskin. *Oxford University Press; 4,250 pages; $699 and £425*

A magisterial survey of the traditions of western music, Richard Taruskin's narrative masterclass sets the details of music, as well as the chronological sweep of figures, works and musical ideas, within the larger context of cultural history and world affairs. This Oxford history is authoritative, opinionated and controversial, which is not surprising given that all six volumes are written by one man—and the most prominent and provocative musicologist of our time at that.

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Classical Music in America: A History of its Rise and Fall. By Joseph Horowitz. *Norton; 606 pages; $39.95 and £28*

Despite hopeful beginnings in the 19th century, undue reverence for European masterworks and adulation for star performers have increasingly marginalised American classical music. Joseph Horowitz develops his thesis superbly well, through a fascinating gallery of characters and events.

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A Year in the Life of William Shakespeare: 1599. By James Shapiro. *HarperCollins; 416 pages; $27.95. Faber and Faber; £16.99*

By exploring the plays and the politics of a single year, 1599, James Shapiro throws an unusually searching light across Shakespeare's creative genius and makes him come truly alive.

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The Chains of Heaven: An Ethiopian Romance. By Philip Marsden. *HarperCollins; 320 pages; £14.99*

When Philip Marsden first went to Ethiopia in 1982, what he saw of its astonishing antiquity, its raw medieval Christianity, and its extremes of brutality and grace inspired his restless curiosity. In his account of his return 20 years later, he reaches deep into the heart of the nation by letting Ethiopians tell their own story.

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Books by Economist writers in 2005

What we wrote

Dec 8th 2005
From The Economist print edition

When we weren't in the office

OUR policy is not to review books by our staff or regular freelance writers because of the difficulty in convincing readers that such reviews are independent. Some readers, however, have expressed interest in knowing about such books. So here is a list of those published by staff at The Economist Group, as well as freelance contributors, during 2005. The list will be kept up to date here (which also has details of all staff books in print).

How the East Was Won: The Impact of Multinational Companies on Eastern Europe and the Former Soviet Union. By Charles Paul Lewis. *Palgrave Macmillan; 256 pages; $65*

How multinational corporations, where they have been allowed to operate in large numbers, have been a vital component in the transition to a working, democratic, capitalist society, by the managing editor of the Economist Intelligence Unit newsletter, *Business Eastern Europe.*

A History of the World in Six Glasses. By Tom Standage. *Walker; 311 pages; $25*

Throughout time, certain drinks have done much more than just quench thirst. Tom Standage, our technology editor, relates how six beverages, in particular, have influenced the course of history during pivotal epochs, from man's adoption of agriculture to the advent of globalisation.

Tom Graveney at Lord's: A Year in the Life of the Home of Cricket. By Stephen Fay. *Methuen; 256 pages; £18.99*

Tom Graveney is the first professional player to preside at the high table of English cricket—the presidency of the Marylebone Cricket Club (MCC) at Lord's in north London. This book, by a former editor of *Wisden Cricket Monthly* who is a freelance contributor to *The Economist*, follows his year in office and analyses, in detail, how such a deeply conservative club as the MCC set about trying to come to terms with the contemporary world.

The Stone-Age Company: Why the Companies We Work For Are Dying and How They Can Be Saved. By Sally Bibb. *Cyan; 224 pages; £9.99*

Managing is all too often based on the old-fashioned view that people must be kept under careful

watch and tight control at work. Yet companies simultaneously talk of people as their greatest asset, boasting about creativity and knowledge, and failing to see the contradiction. By our head of group sales development.

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Obituary

Howard Gotlieb

Dec 8th 2005
From The Economist print edition

Howard Gotlieb, archivist extraordinaire, died on December 1st, aged 79

Fred Sway, BU Photoservices

VERY few people achieve fame, but multitudes hanker after it. Despite the rejected book proposals, the discouraging auditions and the lost elections, many a man or woman still looks in the mirror and sees a star. Some see one before they have done much in their lives at all. All they need is recognition.

Howard Gotlieb's talent, one of several, was to spot such people and flatter their vanity most outrageously. First would come a letter on Crane bond, luscious to the touch, inviting them to donate their papers and ephemera to Boston University, where he was the archivist of special collections. Then would come tasteful accolades, or copies of Mr Gotlieb's rebuttals of critics who had been unkind. Telephone calls would follow and, if the target was female, flowers. Potential donors were gently reminded of tax breaks, and the financial advantages of getting BU to look after their papers. Each year would bring a party, at the Plaza in New York or The Breakers in Palm Beach or Claridge's in London, at which potential stars would mingle with real ones “to adore and be adored”, as the *Boston Globe*'s man put it.

Mr Gotlieb's strategy was to get people to give him their papers before they were even aware that they could command a price. He caught David Halberstam, who went on to write 19 books, when he was fresh back from Vietnam and had written none. He snared Dan Rather when Mr Rather was still a wet-behind-the-ears White House correspondent. Isaac Azimov, who was burning all his story ideas and first drafts in the barbecue pit in his garden, was encouraged instead to hand them over. Martin Luther King, Mr Gotlieb's biggest catch, was nabbed in 1964, before the Selma

march had propelled him to international fame. His archive at BU now contains some 90,000 papers; his family sued to remove them, but failed.

This sort of risky long-distance forecasting had not been part of Mr Gotlieb's brief when he was plucked, from teaching history at Yale, to run BU's special collections in 1963. His instructions were to build up an archive useful for the history of the 20th century. But he had very little money to bid for books and manuscripts against the likes of Stanford and the University of Texas. The big-name politicians and authors being out of his range, he decided he would pick the folk who looked promising in the long term, and also beg for the pity and favour of celebrities he liked.

His passions were the movies, literature, journalism and the stage; what he acquired went well beyond the papers BU had imagined. For another of Mr Gotlieb's talents was to recognise, earlier than anyone else, the archival value of stardom in its flimsiest forms. Where other archivists were reverently accumulating the papers of Lincoln or Dickens, he wanted Myrna Loy's dry-cleaning bills, Freddie Ayer's cheque stubs and Basil Rathbone's phone bills, if he could get them.

His flattery of stars-to-be was as nothing compared with his wooing of his Hollywood favourites. He complained of getting calluses from spending so much time on his knees. He had Bette Davis's sofas re-upholstered for her, and organised Rex Harrison's room at the Ritz-Carlton. Both gave him their papers in the end. But Gloria Swanson never did, though he stayed at her Park Avenue apartment, carefully not drinking and not smoking, and suffered her to tease him with rack after rack of costumes from her films. She preferred to sell them, for $1m, to the University of Texas.

Dancing shoes and gas masks

It was a rare defeat. (Richard Nixon was another, but he had his own library to fill.) By Mr Gotlieb's death, almost seven miles of shelves were stacked with boxes containing the papers and stuff of more than 2,000 people: the famous, the almost famous, and those whose day might never come. They included Fred Astaire's dancing shoes, several pairs, with the name of the relevant film written on the insole; Gene Kelly's Oscar for “Singin' in the Rain”, as well as the Tonys, Oscars and Emmys of anyone who no longer cared to give them house room; Bette Davis's recipe books, George Bernard Shaw's scribbled stage directions and the gas mask Dan Rather wore to get into Afghanistan incognito in 1980. Mr Rather, a friend, sent Mr Gotlieb a box of his papers and ephemera every month for 40 years, instructing his secretary simply to clear off his desk on Friday nights. Other archivists might jib at that; Mr Gotlieb was delighted. He wished all his chosen donors would do the same, and keep “a large garbage-can marked ‘Gotlieb’” always ready to hand.

His taste and sanity were sometimes challenged, but he had a firm guiding philosophy. His collection was supposed to show “the ups and downs and the facts and the secrets” of the careers of people who believed they had a destiny to shine. And he was convinced he could spot them.

Of his own history, he hardly spoke. He had been born in Bangor, Maine, and never cared to go back there. As a child he had collected stamps; as an adult he collected Picasso, Braque and Dali for his apartment in Back Bay, and sought out rare signed first editions. He had no immediate family. Indeed, he didn't need one. He was already the custodian of substantial parts of more than 2,000 lives, including their dreams of immortality.

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Overview

Dec 8th 2005
From The Economist print edition

As the economy shook off the effects of September's hurricanes, **America's** employment figures improved sharply in November. Outside agriculture, 215,000 new jobs were created, up from only 44,000 in October. The unemployment rate was unchanged, at 5%.

Revised figures showed that America's **productivity growth** accelerated to an annualised 4.7% in the third quarter, its fastest pace since mid-2003. Compared with a year earlier, productivity grew by 3.1%. Over the same period total labour compensation increased by 5.0%, so the growth in unit labour costs slowed to 1.8% in the year to the third quarter.

Canada's central bank raised short-term interest rates by a quarter point to 3.25% and suggested further monetary tightening would be necessary.

Britain's industrial production fell by 1.8% in the year to October. On a monthly basis, British manufacturing had its worst month since March.

Sweden's GDP growth rose by 3.4% in the year to the third quarter, up from 2.3% in the year to the second quarter, thanks to strong domestic demand, particularly investment.

Australia's GDP grew by an annual rate of only 0.6% in the third quarter, its slowest for more than two years. Its year-on-year growth rate slipped to 2.6%.

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Output, demand and jobs

Dec 8th 2005
From The Economist print edition

% change on year ago

	GDP latest		GDP qtr*	The Economist poll GDP forecasts 2005	2006	Industrial production latest		Retail sales (volume) latest		Unemployment % rate latest		year ago
Australia	+ 2.6	Q3	+ 0.6	+ 2.6	+ 3.3	+ 0.7	Q2	+ 1.2	Q3	5.1	Nov	5.2
Austria	+ 2.1	Q2	+ 1.8	+ 1.6	+ 2.0	+ 1.6	Sep	+ 0.9	Sep	5.2	Nov	5.0
Belgium	+ 1.1	Q3	+ 1.7	+ 1.3	+ 1.8	– 3.9	Sep	+ 0.9	Sep	13.2	Oct†	13.2
Britain	+ 1.7	Q3	+ 1.6	+ 1.7	+ 2.1	– 1.8	Oct	+ 1.5	Oct	4.7	Sep††	4.7
Canada	+ 2.8	Q3	+ 3.6	+ 2.9	+ 3.0	+ 1.1	Sep	+ 4.9	Aug	6.4	Nov	7.2
Denmark	+ 4.8	Q3	+ 5.7	+ 2.4	+ 2.4	+ 4.6	Oct	+ 4.4	Oct	5.4	Oct	6.3
France	+ 1.8	Q3	+ 2.7	+ 1.6	+ 1.9	+ 0.2	Sep	+ 0.5	Sep	9.7	Oct	10.0
Germany	+ 1.4	Q3	+ 2.5	+ 1.0	+ 1.5	+ 3.6	Sep	– 0.8	Oct	11.5	Nov§	10.7
Italy	nil	Q3	+ 1.2	+ 0.1	+ 1.2	– 1.7	Sep	+ 0.1	Sep	7.7	Jun	8.1
Japan	+ 3.0	Q3	+ 1.7	+ 2.4	+ 2.2	+ 3.0	Oct	+ 0.4	Sep	4.5	Oct	4.6
Netherlands	+ 0.9	Q3	+ 1.3	+ 0.7	+ 1.8	+ 1.6	Sep	+ 2.7	Sep	6.5	Oct**	6.5
Spain	+ 3.5	Q3	+ 3.3	+ 3.4	+ 3.0	– 0.4	Oct	– 0.2	Oct	8.6	Oct	10.6
Sweden	+ 3.4	Q3	+ 3.9	+ 2.4	+ 2.8	+ 2.5	Oct	+ 7.3	Oct	5.6	Oct†	4.9
Switzerland	+ 2.3	Q3	+ 4.3	+ 1.3	+ 1.8	+ 3.9	Q2	+ 4.7	Aug	3.7	Nov†	3.9
United States	+ 3.7	Q3	+ 4.3	+ 3.6	+ 3.3	+ 1.9	Oct	+ 2.8	Oct	5.0	Nov	5.4
Euro area	+ 1.6	Q3	+ 2.6	+ 1.3	+ 1.8	+ 1.0	Sep	+ 0.4	Oct	8.3	Oct	8.8
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Finland	+ 1.7	Q3	+ 7.8	na	na	– 0.8	Oct	+ 5.5	Sep	8.1	Oct	8.7
Greece	+ 3.7	Q3	na	na	na	+ 0.1	Sep	+ 2.1	Sep	9.6	Q2	10.2
Iceland	+ 6.8	Q2	na	na	na	na		na		1.4	Sep†	2.6
Ireland	+ 4.1	Q2	+ 6.5	na	na	+ 0.4	Sep	+ 5.0	Sep	4.3	Nov	4.3
Luxembourg	+ 3.1	Q1	na	na	na	+15.8	Aug	+ 1.7	Oct	4.8	Oct	4.3
New Zealand	+ 2.6	Q2	+ 4.5	na	na	– 1.5	Q2	+ 4.9	Q3	3.4	Q3	3.8
Norway	+ 3.1	Q3	+ 3.2	na	na	– 4.1	Oct	+ 3.5	Oct	4.7	Oct**	4.5
Portugal	+ 0.5	Q2	+ 4.1	na	na	+ 0.7	Oct	– 0.4	Oct	7.7	Q3†	6.8

*% change on previous quarter at an annual rate. †Not seasonally adjusted. ††Jul-Sep; claimant count rate 2.8% in Oct.
§EU harmonised rate 9.1% in Oct. **Aug-Oct.

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Prices and wages

Dec 8th 2005
From The Economist print edition

% change on year ago

	Consumer prices			The Economist poll consumer prices forecast		Producer prices			Wages/earnings		
	latest		year ago	2005	2006	latest		year ago	latest		year ago
Australia	+ 3.0	Q3	+ 2.3	+ 2.8	+ 2.8	+ 6.2	Q3	+ 6.1	+ 6.1	Q3	+ 3.5
Austria	+ 2.0	Oct	+ 2.6	+ 2.3	+ 2.0	+ 0.9	Nov	+ 5.6	+ 2.3	Oct	+ 2.0
Belgium	+ 2.6	Nov	+ 2.5	+ 2.5	+ 2.0	+ 1.6	Oct	+ 6.0	+ 2.5	Jul	+ 2.2
Britain	+ 2.3	Oct*	+ 1.2	+ 2.2	+ 2.1	+ 2.6	Oct	+ 3.5	+ 4.1	Sep†	+ 3.8
Canada	+ 2.6	Oct	+ 2.3	+ 2.4	+ 2.4	+ 1.4	Oct	+ 5.4	+ 2.2	Sep	+ 2.4
Denmark	+ 2.0	Oct	+ 1.7	+ 2.0	+ 2.0	+ 4.3	Oct	+ 3.6	+ 2.8	Q3	+ 2.9
France	+ 1.8	Oct	+ 2.1	+ 1.9	+ 1.7	+ 2.9	Oct	+ 3.5	+ 3.2	Q3	+ 2.9
Germany	+ 2.3	Nov	+ 1.8	+ 2.0	+ 1.8	+ 2.7	Oct	+ 4.2	+ 1.1	Sep	+ 1.0
Italy	+ 2.2	Nov	+ 1.9	+ 2.1	+ 2.0	+ 3.9	Oct	+ 4.4	+ 3.0	Oct	+ 2.7
Japan	− 0.7	Oct	+ 0.5	− 0.2	+ 0.3	+ 1.9	Oct	+ 2.1	− 0.1	Oct	+ 0.4
Netherlands	+ 1.8	Nov	+ 1.3	+ 1.5	na	+ 5.3	Sep	+ 6.1	+ 1.1	Nov	+ 0.8
Spain	+ 3.5	Oct	+ 3.6	+ 3.3	+ 3.1	+ 4.9	Oct	+ 5.4	+ 3.4	Q2	+ 3.1
Sweden	+ 0.5	Oct	+ 0.8	+ 0.8	+ 1.6	+ 4.1	Oct	+ 3.0	+ 3.4	Sep	+ 3.1
Switzerland	+ 1.0	Nov	+ 1.5	+ 1.3	+ 1.3	+ 1.0	Oct	+ 2.0	+ 0.9	2004	+ 1.4
United States	+ 4.3	Oct	+ 3.2	+ 3.3	+ 3.1	+ 5.9	Oct	+ 4.4	+ 3.2	Nov	+ 2.4
Euro area	+ 2.4	Nov	+ 2.2	+ 2.2	+ 2.0	+ 4.1	Oct	+ 4.1	+ 2.3	Q2	+ 2.1
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*										
Finland	+ 0.8	Oct	+ 0.9	na	na	+ 3.3	Oct	+ 3.0	+ 3.6	Q3	+ 4.0
Greece	+ 3.5	Nov	+ 3.1	na	na	+ 6.3	Oct	+ 5.3	na		na
Iceland	+ 4.2	Nov	+ 3.8	na	na	+ 3.9	Nov	+ 6.1	+ 6.9	Oct	+ 5.3
Ireland	+ 3.0	Oct	+ 2.7	na	na	+ 0.9	Oct	− 0.4	+ 3.4	Q2	+ 4.3
Luxembourg	+ 2.5	Nov	+ 2.4	na	na	+ 2.5	Sep	+15.1	+ 1.2	Aug	+ 2.3
New Zealand	+ 3.4	Q3	+ 2.5	na	na	+ 6.1	Q3	+ 2.5	+ 3.0	Q3	+ 2.2
Norway	+ 1.8	Oct	+ 1.4	na	na	+10.1	Oct	+24.1	+ 2.6	Q3	+ 4.3
Portugal	+ 2.7	Oct	+ 2.1	na	na	+ 4.1	Oct	+ 5.3	− 0.1	Oct	− 2.4

*RPI inflation rate 2.5% in Oct. †Jul-Sep.

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Economic forecasts

Dec 8th 2005
From The Economist print edition

The Economist poll of forecasters, December averages (previous month's, if changed)

	Real GDP, % change Low/high range		Real GDP, % change average		Consumer prices % increase		Current account % of GDP	
	2005	2006	2005	2006	2005	2006	2005	2006
Australia	2.4/2.8	3.0/3.8	2.6 (2.7)	3.3	2.8	2.8 (2.7)	-5.9(-4.7)	-5.3
Austria	0.8/2.0	1.6/2.4	1.6	2.0 (1.9)	2.3 (2.2)	2.0	nil(-0.2)	-0.2 (-0.3)
Belgium	1.1/1.4	1.4/2.3	1.3	1.8	2.5	2.0 (2.2)	2.3 (2.4)	2.3 (2.4)
Britain	1.6/1.9	1.6/2.4	1.7 (1.8)	2.1	2.2	2.1 (2.2)	-1.7(-2.2)	-1.9 (-2.4)
Canada	2.6/3.0	2.5/3.5	2.9	3.0	2.4	2.4 (2.5)	1.6	1.6 (1.5)
Denmark	1.5/3.5	1.7/2.9	2.4 (2.2)	2.4 (2.2)	2.0 (1.8)	2.0 (1.9)	2.9 (2.8)	2.6 (2.5)
France	1.4/1.7	1.5/2.2	1.6 (1.5)	1.9 (1.7)	1.9	1.7	-1.1(-1.0)	-0.9 (-0.8)
Germany	0.8/1.2	0.9/1.8	1.0 (0.9)	1.5 (1.3)	2.0	1.8 (1.9)	3.9 (3.7)	3.7 (3.5)
Italy	-0.1/0.3	0.8/1.5	0.1 (0.2)	1.2	2.1	2.0 (2.1)	-1.4(-1.3)	-1.5 (-1.4)
Japan	2.2/3.0	1.3/3.3	2.4 (2.3)	2.2 (2.0)	-0.2 (-0.1)	0.3	3.3	3.3
Netherlands	0.5/1.0	1.5/2.2	0.7	1.8 (1.7)	1.5	na	4.2 (3.6)	4.2 (3.6)
Spain	3.1/3.4	2.7/3.4	3.4	3.0	3.3	3.1	-6.0(-6.6)	-5.7 (-6.6)
Sweden	2.2/2.7	2.3/3.3	2.4 (2.3)	2.8	0.8	1.6 (1.5)	7.1	6.5
Switzerland	1.0/1.9	1.1/2.5	1.3 (1.1)	1.8 (1.6)	1.3	1.3 (1.2)	12.5(12.3)	12.0 (11.7)
United States	3.4/3.7	2.6/4.0	3.6	3.3	3.3 (3.4)	3.1	-6.5	-6.5 (-6.6)
Euro area	1.1/1.5	1.3/2.1	1.3	1.8 (1.6)	2.2	2.0 (1.9)	0.1	0.1

Sources: ABN Amro, Deutsche Bank, Economist Intelligence Unit, Goldman Sachs, HSBC Securities, KBC Bank, J.P. Morgan Chase, Morgan Stanley, Decision Economics, BNP Paribas, Royal Bank of Canada, Citigroup, Scotiabank, UBS

Every month *The Economist* surveys a group of forecasters and calculates the average of their predictions for economic growth, inflation and current-account balances for 15 countries and for the euro area. The table also shows the highest and lowest projections for growth. The previous month's figures, where they are different, are shown in brackets. The panel has increased its growth forecast for Japan to 2.4% in 2005 and 2.2% in 2006, up from 2.3% and 2.0% respectively last month. It now thinks that the euro area will grow next year by 1.8%, up from 1.6% in November. France is expected to grow by 1.6% this year and 1.9% in 2006, up from 1.5% and 1.7% respectively in November. And the outlook has also brightened a bit for Germany, forecast to grow by 1.0% in 2005 and 1.5% in 2006, up from 0.9% and 1.3% last month.

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Money and interest rates

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From The Economist print edition

	Money supply* % change on year ago			Interest rates % a year (Dec 7th 2005)					
				3-mth money market		2-year	10-year gov't bonds		corporate
	narrow	broad		latest	year ago	gov't bonds	latest	year ago	bonds
Australia	+ 6.5	+ 7.9	Oct	5.62	5.40	5.30	5.43	5.18	6.42
Britain	+ 5.3	+11.6	Oct	4.59	4.81	4.35	4.27	4.55	5.15
Canada	+ 7.8	+ 8.9	Oct	3.31	2.48	3.78	4.11	4.38	5.24
Denmark	+19.0	+14.1	Oct	2.45	2.25	2.75	3.34	3.80	4.92
Japan	+ 5.5	+ 2.2	Nov	0.02	0.02	0.26	1.52	1.41	1.61
Sweden	+ 4.0	+ 8.5	Oct	1.68	2.00	2.50	3.38	3.88	3.30
Switzerland	+ 4.0	+ 6.2	Oct	1.04	0.76	1.67	2.11	2.19	2.31
United States	+ 0.5	+ 7.3	Oct	4.23	2.26	4.42	4.52	4.13	5.47
Euro area†	+11.2	+ 8.0	Oct	2.45	2.17	2.65	3.37	3.62	3.74

*Narrow: M1 except Britain and Sweden M0, broad: M2 or M3 except Britain M4. †Germany for bonds. Benchmarks: US 30-year 4.72%, Japan No. 274 1.54%. Central bank rates: US fed funds 4.00%, ECB refinancing 2.25%, BOJ overnight call 0.001%, BOE repo 4.5%. Sources: Bank of Canada, Commerzbank, Danske Bank, J.P. Morgan Chase, Stockholmsbörsen, UBS, Global Insight, Westpac, Thomson Datastream. Rates cannot be construed as banks' offers.

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The Economist commodity price index

Dec 8th 2005
From The Economist print edition

2000=100

	Nov 29th	Dec 6th*	% change on one month	% change on one year
Dollar index				
All items	137.0	139.7	+ 3.5	+13.3
Food	121.3	122.7	− 0.3	+ 5.5
Industrials				
All	157.4	161.7	+ 7.5	+22.1
Nfa†	133.0	133.9	+ 1.2	+11.9
Metals	170.7	176.8	+10.4	+26.8
Sterling index				
All items	121.0	121.8	+ 3.6	+26.5
Euro index				
All items	107.7	109.7	+ 3.4	+29.1
Yen index				
All items	152.0	156.9	+ 6.8	+33.4
Gold				
$ per oz	499.00	507.30	+ 9.9	+12.2
West Texas Intermediate				
$ per barrel	56.25	59.94	+ 0.6	+44.8

* Provisional. † Non-food agriculturals.

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Stockmarkets

Dec 8th 2005
From The Economist print edition

Market indices

	Dec 7th	2005 high	2005 low	% change on one week	% change on record high	% change on Dec 31st 2004 in local currency	% change on Dec 31st 2004 in $ terms
Australia (All Ordinaries)	4,576.3	4,617.4	3,905.5	– 0.2	– 0.9	+12.9	+ 7.7
Austria (ATX)	3,617.4	3,617.4	2,415.0	+ 3.6	nil	+48.8	+28.3
Belgium (Bel 20)	3,464.5	3,464.5	2,958.8	+ 2.1	– 5.9	+18.1	+ 1.9
Britain (FTSE 100)	5,528.8	5,538.8	4,783.6	+ 1.9	–20.2	+14.8	+ 3.6
Canada (Toronto Composite)	11,131.4	11,131.4	9,006.2	+ 2.8	– 2.3	+20.4	+24.5
Denmark (OMXCB)	356.8	356.8	257.8	+ 3.8	nil	+38.4	+19.2
France (SBF 250)	3,258.9	3,266.6	2,633.6	+ 2.1	–25.8	+23.7	+ 6.7
(CAC 40)	4,660.6	4,677.2	3,816.1	+ 2.0	–32.7	+22.0	+ 5.2
Germany (DAX)*	5,266.8	5,308.0	4,178.1	+ 1.4	–34.7	+23.7	+ 6.7
Italy (S&P/MIB)	34,790.0	34,874.0	30,645.0	+ 2.1	–30.6	+12.6	– 2.9
Japan (Nikkei 225)	15,484.7	15,551.3	10,825.4	+ 4.1	–60.2	+34.8	+14.3
(Topix)	1,598.6	1,598.6	1,109.2	+ 4.1	–44.6	+39.1	+17.9
Netherlands (AEX)	431.5	432.7	347.0	+ 3.0	–38.5	+24.0	+ 6.9
Spain (Madrid SE)	1,134.0	1,176.9	950.9	– 0.4	– 3.6	+18.2	+ 2.0
Sweden (Affarsvarlden Gen)	284.5	284.5	218.9	+ 2.6	–28.9	+28.6	+ 6.6
Switzerland (Swiss Market)	7,588.8	7,612.0	5,669.6	+ 2.4	– 9.8	+33.3	+15.4
United States (DJIA)	10,810.9	10,940.6	10,012.4	nil	– 7.8	+ 0.3	+ 0.3
(S&P 500)	1,257.4	1,268.3	1,137.5	+ 0.6	–17.7	+ 3.8	+ 3.8
(NASDAQ Comp)	2,252.0	2,273.4	1,904.2	+ 0.9	–55.4	+ 3.5	+ 3.5
Europe (FTSEurofirst 300)†	1,265.4	1,267.4	1,038.6	+ 2.4	–25.8	+21.5	+ 4.8
Euro area (FTSE Euro 100)†	1,068.7	1,071.2	894.4	+ 1.8	–31.1	+18.6	+ 2.3
World (MSCI)‡	1,248.2	1,252.7	1,115.0	+ 1.4	–13.8	+ 6.7	+ 6.7
World bond market (Citigroup)††	610.7	662.3	608.7	– 0.4	– 7.8	– 8.3	– 8.3

*Total return index. †In euro terms. ‡Morgan Stanley Capital International Index includes individual markets listed above plus eight others, in $ terms. ††Citigroup World Government Bond Index, total return, in $ terms.

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Trade, exchange rates and budgets

Dec 8th 2005
From The Economist print edition

	Trade balance*, $bn latest 12 months		Current-account balance $bn latest 12 mths		The Economist poll % of GDP, forecast 2005	2006	Exchange rate trade-weighted† 2000=100 Dec 7th	year ago	Currency units per $ Dec 7th	year ago	per £	per euro	per ¥100	Budget balance % of GDP 2005‡
Australia	− 15.3	Oct	− 43.5	Q3	− 5.9	− 5.3	120.0	111.2	1.34	1.33	2.32	1.57	1.11	+ 1.0
Austria	− 1.9	Sep	+ 0.2	Sep	nil	− 0.2	103.8§	104.4	0.85	0.75	1.48	–	0.71	− 2.0
Belgium	+ 15.3	Sep	+ 9.2	Jun	+ 2.3	+ 2.3	104.3§	105.1	0.85	0.75	1.48	–	0.71	nil
Britain	−116.7	Sep	− 43.6	Q2	− 1.7	− 1.9	98.8	101.1	0.58	0.52	–	0.68	0.48	− 3.1
Canada	+ 48.8	Sep	+ 19.6	Q3	+ 1.6	+ 1.6	125.8	116.2	1.16	1.23	2.01	1.36	0.96	+ 1.3
Denmark	+ 10.4	Sep	+ 11.0	Sep	+ 2.9	+ 2.6	105.8	106.7	6.35	5.60	11.0	7.45	5.26	+ 2.8
France	− 27.7	Sep	− 28.4	Sep	− 1.1	− 0.9	106.8§	107.7	0.85	0.75	1.48	–	0.71	− 3.2
Germany	+203.9	Sep	+113.6	Sep	+ 3.9	+ 3.7	104.6§	105.5	0.85	0.75	1.48	–	0.71	− 3.9
Italy	− 10.4	Sep	− 27.8	Sep	− 1.4	− 1.5	76.5§	77.1	0.85	0.75	1.48	–	0.71	− 4.3
Japan	+102.2	Sep	+111.1	Sep	+ 3.3	+ 3.3	80.3	88.2	121	105	209	142	–	− 6.5
Netherlands	+ 39.8	Sep	+ 44.3	Q3	+ 4.2	+ 4.2	103.8§	104.6	0.85	0.75	1.48	–	0.71	− 1.6
Spain	− 93.9	Sep	− 79.0	Aug	− 6.0	− 5.7	77.2§	77.6	0.85	0.75	1.48	–	0.71	+ 0.3
Sweden	+ 20.8	Oct	+ 24.2	Q3	+ 7.1	+ 6.5	95.0	101.3	8.02	6.78	13.9	9.40	6.64	+ 1.2
Switzerland	+ 7.0	Oct	+ 51.4	Q2	+12.5	+12.0	107.1	108.7	1.31	1.16	2.28	1.54	1.09	− 1.6
United States	−753.2	Sep	−749.7	Q2	− 6.5	− 6.5	88.3	81.3	–	–	1.73	1.17	0.83	− 3.7
Euro area	+ 47.3	Sep	+ 1.4	Sep	+ 0.1	+ 0.1	114.9	119.1	0.85	0.75	1.48	–	0.71	− 2.9
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*													
Finland	+ 11.7	Sep	+ 8.0	Sep	na	na	81.4§	81.9	0.85	0.75	1.47	–	0.70	+ 2.1
Greece	− 34.0	Sep	− 16.5	Sep	na	na	59.9§	60.2	0.85	0.75	1.47	–	0.70	− 4.5
Iceland	− 1.3	Oct	− 2.2	Q3	na	na	106.7**	96.6	64.9	62.6	112	76.1	53.7	+ 2.0
Ireland	+ 40.6	Sep	− 3.9	Q2	na	na	94.0§	95.2	0.85	0.75	1.47	–	0.70	− 0.9
Luxembourg	− 4.5	Sep	+ 3.5	Q2	na	na	104.3§	105.1	0.85	0.75	1.47	–	0.70	− 2.3
New Zealand	− 4.3	Oct	− 8.2	Q2	na	na	143.7	132.7	1.42	1.42	2.45	1.66	1.17	+ 5.3
Norway	+ 45.9	Oct	+ 43.7	Q3	na	na	110.0	106.8	6.76	6.19	11.7	7.92	5.59	+ 15.3
Portugal	− 14.2	Aug	− 16.6	Sep	na	na	93.4**	93.6	0.85	0.75	1.47	–	0.70	− 6.0

*Merchandise. Australia, Britain, France, Canada, Japan and United States imports fob, exports fob. All others cif/fob. †Bank of England except §IMF, October average. ‡OECD forecast. **IMF, August average.

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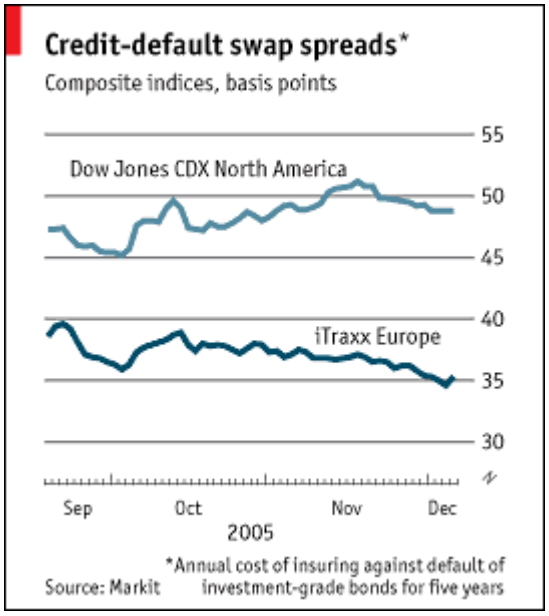
Credit-default swap spreads

Dec 8th 2005
From The Economist print edition

In both North America and Europe credit-default swap (CDS) spreads have eased in recent weeks. The Bank for International Settlements valued the CDS market at $10.2 trillion at the end of June.



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Overview

Dec 8th 2005
From The Economist print edition

Argentina's consumer prices rose by 12% in the year to November, more than twice the growth of a year earlier. But **Russia's** inflation rate eased to 10.4% in the same month. **Venezuela's** inflation rate also slowed to 15.3%, compared with 19.5% a year earlier.

Brazil's trade surplus widened to a record $43.9 billion in the 12 months to November. Industrial output rose by only 0.4% in the year to October, as high interest rates took their toll.

Turkey's current-account deficit widened to a record $22.1 billion in the year to October.

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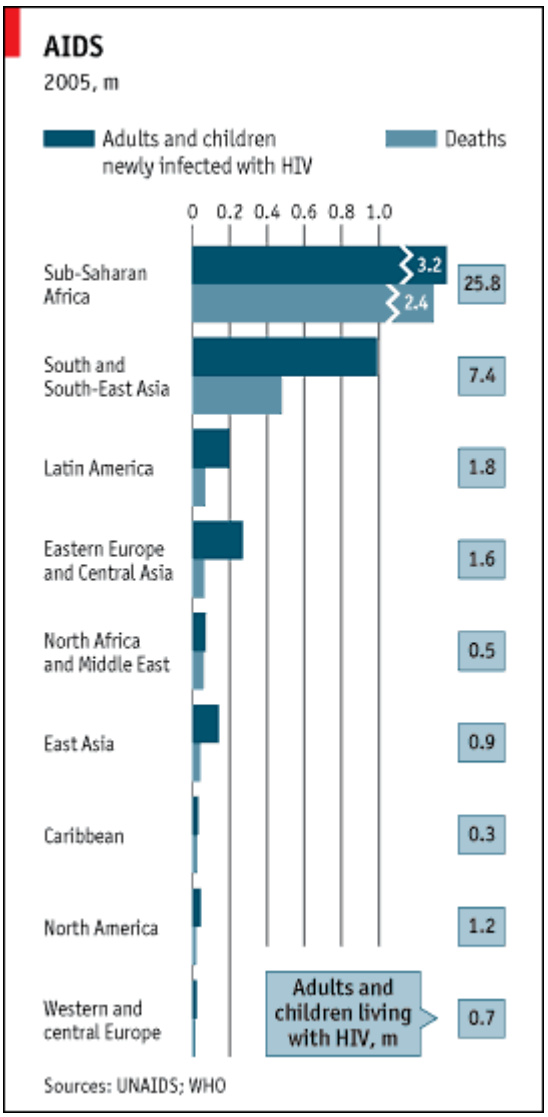
AIDS

Dec 8th 2005
From The Economist print edition

Get article background

The number of people living with HIV continues to increase. In 2005 the global total reached 40.3m, up from 37.5m in 2003. There have been 4.9m new infections this year, including 700,000 children. And 3.1m people, of whom 570,000 were children, died of AIDS-related illnesses. Sub-Saharan Africa continues to be the worst-affected area, accounting for two-thirds of all people living with HIV. But the number infected is also increasing sharply elsewhere, especially eastern Europe and Central Asia, where it jumped from 1.2m in 2003 to 1.6m in 2005.



Economy

Dec 8th 2005
From The Economist print edition

	% change on year ago						Latest 12 months, $bn				Foreign reserves* $bn, latest	
	GDP		Industrial production		Consumer prices		Trade balance		Current account			
China	+ 9.4	Q3	+16.1	Oct	+ 1.2	Oct	+101.5	Oct	+128.5	H1	769.0	Sep
Hong Kong	+ 8.2	Q3	– 0.1	Q2	+ 1.8	Oct	– 9.0	Oct	+21.5	Q2	122.4	Nov
India	+ 8.0	Q3	+ 7.3	Sep	+ 4.2	Oct	–36.5	Oct	–16.0	Q2	137.6	Oct
Indonesia	+ 5.3	Q3	– 3.4	Sep	+18.4	Nov	+25.6	Oct	+ 4.0	Q2	31.2	Oct
Malaysia	+ 5.3	Q3	+ 4.4	Oct	+ 3.3	Oct	+25.0	Oct	+18.0	Q2	76.4	Oct
Philippines	+ 4.1	Q3	– 5.0	Sep	+ 7.1	Nov	– 1.9	Sep	+ 3.2	Jun	15.5	Nov
Singapore	+ 6.0	Q3	+17.6	Oct	+ 1.1	Oct	+16.4	Oct	+33.7	Q3	115.6	Oct
South Korea	+ 4.5	Q3	+ 8.0	Oct	+ 2.4	Nov	+25.2	Nov	+19.2	Oct	207.2	Oct
Taiwan	+ 4.4	Q3	+ 9.3	Oct	+ 2.5	Nov	+ 3.8	Nov	+ 8.9	Q3	251.8	Nov
Thailand	+ 5.3	Q3	+ 4.9	Oct	+ 5.9	Nov	– 7.9	Oct	– 3.0	Oct	48.5	Oct
Argentina	+10.1	Q2	+ 6.8	Oct	+12.0	Nov	+11.5	Oct	+ 2.9	Q2	24.8	Sep
Brazil	+ 1.0	Q3	+ 0.4	Oct	+ 6.4	Oct	+43.9	Nov	+13.0	Oct	59.7	Oct
Chile	+ 5.2	Q3	+ 4.2	Oct	+ 3.6	Nov	+ 9.2	Nov	– 0.2	Q3	15.0	Oct
Colombia	+ 5.3	Q2	+ 3.4	Sep	+ 5.1	Nov	+ 1.5	Sep	– 0.8	Q2	14.1	Oct
Mexico	+ 3.3	Q3	+ 1.0	Sep	+ 3.1	Oct	– 9.5	Oct	– 8.4	Q3	71.2	Oct
Peru	+ 5.7	Sep	+ 6.0	Sep	+ 1.1	Nov	+ 4.3	Sep	+ 0.4	Q2	12.7	Oct
Venezuela	+ 9.8	Q3	+12.4	Sep	+15.3	Nov	+28.2	Q3	+21.6	Q3	24.4	Oct
Egypt	+ 5.2	Q1	+ 3.3	2004†	+ 3.9	Oct	–10.4	Q2	+ 2.9	Q2	19.8	Oct
Israel	+ 5.7	Q3	+12.1	Sep	+ 2.7	Oct	– 7.9	Oct	+ 1.3	Q2	28.1	Nov
South Africa	+ 4.9	Q3	+ 0.3	Oct	+ 4.0	Oct	– 2.9	Oct	– 8.6	Q2	17.9	Nov
Czech Republic	+ 5.1	Q2	+ 7.1	Sep	+ 2.4	Nov	+ 1.5	Oct	– 4.1	Q2	29.2	Nov
Hungary	+ 4.5	Q3	+ 9.8	Oct	+ 3.2	Oct	– 3.4	Sep	– 8.6	Q2	16.7	Nov
Poland	+ 3.7	Q3	+ 7.6	Oct	+ 1.6	Oct	– 3.2	Sep	– 4.8	Sep	39.9	Nov
Russia	+ 6.1	Q2	+ 3.5	Oct	+10.4	Nov	+117.0	Sep	+87.4	Q3	164.7	Nov
Turkey	+ 4.2	Q2	+ 7.0	Oct	+ 7.5	Oct	–42.5	Oct	–22.1	Oct	44.8	Oct
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Estonia	+10.8	Q3	+ 8.7	Oct	+ 4.5	Oct	– 2.4	Sep	– 1.5	Sep	1.7	Sep
Latvia	+11.6	Q2	+ 7.8	Sep	+ 7.6	Oct	– 2.8	Sep	– 1.6	Sep	2.3	Sep
Lithuania	+ 7.6	Q3	na		+ 2.9	Oct	– 3.4	Sep	– 1.5	Sep	3.6	Sep
Slovakia	+ 6.2	Q3	+ 5.4	Sep	+ 3.3	Oct	– 1.9	Sep	– 2.6	Aug	15.3	Sep
Slovenia	+ 5.2	Q2	+ 2.0	Sep	+ 2.1	Nov	– 1.4	Sep	– 0.3	Sep	8.1	Aug
Pakistan	+ 8.4	2005†	+11.0	Jun	+ 8.3	Oct	– 8.3	Oct	– 1.5	Q2	10.0	Oct
Saudi Arabia	+ 6.2	2005‡	na		+ 0.4	Aug	+85.2	2004	+51.5	2004	29.8	Oct

*Excluding gold, except Singapore; IMF definition. †Year ending June. ‡ Forecast.

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Reuters; WM/Reuters; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; Bank Leumi le-Israel; Standard Bank Group

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Financial markets

Dec 8th 2005
From The Economist print edition

	Currency units per $ Dec 7th	Currency units per $ year ago	Currency units per £ Dec 7th	Interest rates short-term % a year	Stockmarkets Dec 7th	% change on one week	% change on Dec 31st 2004 in local currency	% change on Dec 31st 2004 in $ terms
China	8.08	8.28	14.0	2.40	1,156.2	+0.1	- 13.1	- 10.9
Hong Kong	7.75	7.77	13.4	4.23	15,135.0	+1.3	+ 6.4	+ 6.6
India	46.2	43.9	80.1	5.72	8,895.8	+1.2	+ 34.7	+ 26.7
Indonesia	9,835	9,180	17,042	14.45	1,151.4	+5.0	+ 15.1	+ 8.6
Malaysia	3.78	3.80	6.55	3.20	891.7	-0.5	- 1.7	- 1.2
Philippines	53.8	56.1	93.2	7.94	2,103.4	+0.2	+ 15.4	+ 20.4
Singapore	1.69	1.65	2.92	3.13	2,311.8	+0.5	+ 11.9	+ 8.3
South Korea	1,035	1,059	1,794	3.96	1,324.8	+2.1	+ 47.9	+ 47.8
Taiwan	33.5	32.1	58.0	1.55	6,329.5	+2.0	+ 3.1	- 2.4
Thailand	41.3	39.5	71.5	4.40	694.9	+4.1	+ 4.0	- 2.1
Argentina	2.99	2.98	5.19	8.06	1,525.5	-1.9	+ 10.9	+ 10.2
Brazil	2.18	2.76	3.78	18.48	32,756.0	+2.6	+ 25.0	+ 52.4
Chile	511	584	885	5.04	9,371.4	-0.6	+ 4.6	+ 13.8
Colombia	2,274	2,458	3,941	6.33	8,921.3	+3.7	+105.3	+112.3
Mexico	10.4	11.3	18.1	8.42	17,244.2	+2.5	+ 33.5	+ 42.6
Peru	3.41	3.32	5.91	3.32	5,210.7	+3.5	+ 40.4	+ 35.1
Venezuela	2,550§	2,569§	4,419	11.14	19,856.5	-0.7	- 33.7	- 33.0
Egypt	5.75	6.23	9.97	8.81	53,515.6	+10.0	+117.7	+129.7
Israel	4.63	4.34	8.02	4.78	796.7	+0.8	+ 23.7	+ 15.5
South Africa	6.33	5.87	11.0	7.35	17,292.4	+3.1	+ 36.6	+ 21.6
Czech Republic	24.7	23.2	42.9	2.19	1,436.4	+2.4	+ 39.2	+ 25.6
Hungary	217	185	375	6.28	21,072.8	-0.5	+ 42.9	+ 19.3
Poland	3.28	3.16	5.68	4.64	34,481.2	+1.6	+ 29.5	+ 18.4
Russia	29.0	28.0	50.2	13.00	1,083.2‡	+4.4	+ 84.4	+ 76.4
Turkey	1.36	1.42	2.35	14.98	38,441.6	+0.9	+ 53.9	+ 53.0
EM (MSCI)*	1.00	1.00	1.73	na	689.1	+3.2	+ 27.1	+ 27.1
EMBI+†	1.00	1.00	1.73	na	362.9	+0.2	+ 10.1	+ 10.1

*Emerging Mkts. †J.P. Morgan Chase's Emerging Mkts Bond Index Plus. ‡In $ terms. §Floating exchange rate.

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Reuters; WM/Reuters; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; Bank Leumi le-Israel; Standard Bank Group

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